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SHAKSPERE AND THE MEDICAL SCIENCES.

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BY

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IT has almost become a stereotyped plan for the president of a society like ours to introduce into his address, by way of preface, a statement, more or less in detail, that for the fulfilment of the duties of the office he is much less capable than any of his predecessors. This is probably an outcome of the retiring modesty of the Profession in its individual capacity and of the desire to carry out the apostolic precept of esteeming others better than one's self. If it were absolutely true—and if it were a fact that the welfare of the constitution depended upon the nominal

president—a society which had got to its fourteenth session with a steady deterioration constantly going on would indeed be in a sad state.

I shall try to avoid the mistake of offering this customary apology, because to doubt the wisdom of the choice of the members seems to me to cast a slur upon the intelligence of the electing body, and I think it is more becoming, when elected, to enter manfully into the duties of the office and do the best that in one lies.

But the choice of the subject of an address involved considerable difficulty. Rather than bore you by a quasi-philosophical dissertation; or try your patience with a sort of clinical lecture; or even attempt to instruct you by unverified semi-scientific hypotheses, I decided that I would seek to interest you by presenting, after independent investigation, a record of what Shakspere has to say about Medical Men and their modes of procedure. As of late years circumstances have brought me into a tolerably close familiarity with the Shaksperian text, I felt that I might, in a new way, say something about the matter which, if it did not profit, might, at least, not weary. The end of the sixteenth and the beginning of the seventeenth century was a period richer in intellectual force than any previous to our own age; and it seemed to me that it might possibly have a general interest if I fixed your attention upon the views of current medicine as expressed in the writings of the greatest observer of human nature in all its aspects. It would any way absolve me from the charge of slavishly following in the steps of any of my distinguished predecessors, and it might, in a brief space, show something of the development of one period in our medical history.

We are not justified in ignoring the history of any

period of the development of our art. Our views three hundred years hence may appear crude and barbaric to a generation that may have reduced medicine to an exact science, and that may have invented a race of medical men able to apply the principles of their profession with a precision exceeding even that of the automatic machine of the present day. An automatic doctor is one of the possibilities of the future. But looking out from our temporary residence in Hades, we shall feel wronged if the share, small as it may be, that we have had in attaining this end is not taken into account.

This Society is engaged in the high and responsible duty of doing its best to alleviate present suffering, and also of helping forward the knowledge by which a posterity shall find the exercise of its art more easy and more scientific. This should make us careful not to advance theories on insufficient data, but only after a well-considered study of facts presented to our observation. Amidst much good scientific work of the present day there is too great a tendency to hasty generalisation. An earnest professor in an obscure continental Clinic, in a small series of cases of a certain disease, administers a new drug, in spite of which the patients get well. In an elaborate essay bristling with chemical formulæ the remedy is vaunted as a specific, but upon extended experience is fated to be relegated to that collection of broken reeds to which the practitioner has unfortunately trusted when he has temporarily forgotten that he has to treat a disease *plus* an individuality.

We need at present more records from men whose minds are fitted to test the balance of evidence, and who are unbiassed in favour of particular views. Our hospitals are not affording us the information we have a right to expect from them. It is much to be desired that com-

petent experts should be entrusted with the task of comparing and summarising hospital-results, which have been carefully prepared by trained observers. An attempt in this direction was made in the plan introduced some years ago, and known as "Collective Investigation." But there the great error was made of appealing individually to men too limited in their experience of particular diseases; and the fallacy of such a mode was mercilessly, but opportunely, exposed by an anonymous writer in our own Journal some years ago;* and, fortunately for the medical scientific reputation of the last quarter of the nineteenth century, but little is now heard of that ill-begotten scheme.

It was only by an accumulated observation of facts that such fixed articles as we have in our medical creed have got into their definite form. There is, therefore, a peculiar fitness in going, for the subject of an address, to a writer who has given us a truer picture of the time in which he lived than any one else has been able to present, and this by holding the mirror up to Nature and then noting in expressive language the facts which he observed.

It has been claimed for Shakspere that in some branches of medical science he showed a knowledge far in advance of members of the profession. On the other hand, it has been asserted that he knew no more than any old woman of the period could have told him. It was my purpose to collect the passages referring, directly or indirectly, to medical science or practice, and thus try to find where the truth lies between these conflicting statements; for a third hypothesis—that he may, for the medical allusions, have consulted some practitioner of the healing art—can be dismissed at once, as the references

* *Bristol Medico-Chirurgical Journal*, Vol. II., pp. 196–9. 1884.

are too numerous and too incidental for such a theory to be taken into consideration.*

But when I had partly put this intention into practice, I found that I had marked † so many passages for comment that, if I had carried out my original plan, I should have had to have written an address far exceeding the usual length of such discourses.

It seemed undesirable to make selections, and so I determined to limit the subject of this address to Shakspere's references to **The Practitioner,** trusting to the Editor to find me, in future numbers of the Journal, space for the comments on the other passages.

Shakspere brings before us six classes of persons engaged in what we now recognise as branches of our Profession. These are—**The Physician, The Surgeon, The Apothecary, The Tooth-drawer, The Midwife, The Nurse.** In addition to these, and closely connected with them in Shakspere's day, there is **The Gatherer of Simples.**

Dr. Bucknill "arrived at the fullest conviction that the great dramatist had, at least, been a diligent student of all medical knowledge existing in his time."‡ And referring to *Much Ado about Nothing* (IV. i. 254),§ he says,

* I believe that such a practice was adopted by the late "Hugh Conway" in his widely-read *Called Back*, and that he obtained the information required from a member of our Society.

† It is almost needless to say that I could not have done this without the help of Mrs. Cowden-Clarke's *Concordance* and Schmidt's *Lexicon*, two indispensable works.

‡ *The Medical Knowledge of Shakespeare*, p. 290. London, 1860. This is a book which every doctor, and every Shakspere-student, ought to have. I have been greatly indebted to it. With the exception of Paré's book, it has been my only source for allusions in Shakspere's medical contemporaries.

§ All the line-references are to the "Globe" edition.

concerning the Friar's observation to Leonato about the appropriateness of using extreme methods for extreme diseases, "the passage is evidently copied from the sixth aphorism of Hippocrates," and he thinks Shakspere "derived it from some work on the original."*

It is of interest therefore to see how Shakspere refers to the names of those connected by fame with the healing art. Taking them in chronological order, we first find two of the most commonplace allusions to that very mythical personage, the God of Medicine. Cerimon, the physician in *Pericles*, when he hopes by his skill to prevent Thaisa having a relapse, says, as in duty bound—

"And Æsculapius guide us!"—III. ii. 111.

And the doctor in *The Merry Wives of Windsor* is saluted by the host in mock heroics as—

"My Æsculapius."—II. iii. 29.

Pythagoras, although not strictly a physician, deserves inclusion in the list because he influenced modes of life so greatly by introducing into his philosophic system such serious dietetic restrictions. Shakspere mentions him upon three occasions, each in connection with his doctrine of transmigration of souls—a theory for which Shakspere had no respect. Gratiano, moved by Shylock's vindictiveness, says to him:

"Thou almost mak'st me waver in my faith
To hold opinion with Pythagoras,
That souls of animals infuse themselves
Into the trunks of men: thy currish spirit
Governed a wolf, who, hanged for human slaughter,
Even from the gallows did his fell soul fleet,
And, whilst thou lay'st in thy unhallowed dam,
Infused itself in thee."

The Merchant of Venice, IV. i. 130–7.

* *Op cit.*, p. 116.

Rosalind, amused at the verses in her praise found on the trees in the forest, says:

> "I was never so be-rhymed since Pythagoras' time, that I was an Irish rat."—*As You Like it*, III. ii. 186-7.

And the Clown, in his assumed ecclesiastical examination of Malvolio, catechises him thus:

> CLOWN. "What is the opinion of Pythagoras concerning wild fowl?"
>
> MALVOLIO. "That the soul of our grandam might haply inhabit a bird."
>
> CLOWN. "What thinkest thou of his opinion?"
>
> MALVOLIO. "I think nobly of the soul, and no way approve his opinion." *Twelfth Night*, IV. ii. 54-60.

But it is not to his influence upon medical practice that his views are of much interest to doctors who, perhaps unconsciously, have had more to do with him as a geometrician, notably as the originator of the forty-seventh proposition of the first book of Euclid.

To Hippocrates, Shakspere has only one allusion by name, and that in a perverted form by Sir Hugh Evans, who depreciates the worth of the "renowned French physician," whom he describes as ill read in the works of the Father of Medicine. All laymen have a desire to know something of medical matters; and it is more than likely that in Shakspere this desire was so intensified that he would avail himself of all opportunities of looking into medical writings for a wider range of view, with the inevitable result of making a jumble in his own mind. How far his medical and surgical allusions are imbued with the spirit of Hippocrates, I must leave to the opinion of my hearers who are deeply read in both authors; but it may be not too much to say, that if Hippocrates had been an Elizabethan dramatist, the style of his writing would have been Shaksperian; and had Shakspere been a

Greek physician, his characteristics would have been those of Hippocrates, as a close observer and recorder of signs and a frugal prescriber of drugs. But in the surgery of the present day, Hippocrates would be quite at home; for more than two thousand years ago he was incising the pleura for the relief of empyema, and treating phthisical cavities by direct surgical operation, and practising cerebral surgery with much frequency.* On account of the veneration paid to the dead body by the Greeks, his opportunities for dissection were small. As therefore he was not hampered by a very elaborate knowledge of anatomy, it is perhaps fortunate for his reputation that there are on record no statistical tables of his results.

From him Shakspere might have learned much, for medical art in the sixteenth century had deteriorated sadly from its high position as expounded by Hippocrates.

Shakspere has two references to Aristotle, but each time as an ethical teacher, taking no cognisance of the fact that he, the son of a physician, had some medical tastes, and knew much of comparative anatomy.

Nearly six hundred years after Hippocrates came Galenus, whose influence was strong in Shakspere's day. In 1559—five years before Shakspere was born—Dr. John Geynes, the year before his admission as a Fellow of the Royal College of Physicians of London, "was cited before the College for impugning the infallibility of Galen. On his acknowledgment of error, and humble recantation signed with his own hand, he was received into the College."† So of course Shakspere has something to say about Galen. He is mentioned twice in *The Merry*

* *The Genuine Works of Hippocrates*, 2 vols. Sydenham Society. 1849.

† *The Roll of the Royal College of Physicians of London*. 2nd edition. Vol. I., p. 62. 1878.

Wives of Windsor (II. iii. 29, and III. i. 67); once as a companion to Æsculapius in the host's appeal to the doctor already mentioned, and the other time associated with Hippocrates as an author in whom, according to Evans, Master Doctor Caius showed such lamentable ignorance. In *All's Well that Ends Well* (II. iii. 12), there is an allusion to his leadership of a school of medicine, where the wonder is expressed that the king could have been cured after being "relinquished by the artists" who practised after the manner of Galen. He was also the authority whence Sir John Falstaff had derived his muddled knowledge of apoplexy (2 *Henry IV.*, I. ii. 133). In *Coriolanus*, Shakspere uses the name of Galen as an opportunity for a scoff at medical practice, in which he was fond of indulging, as the opinion that he always paid respect to the profession is not borne out by his references. Menenius, whose spirits are raised by the news that Coriolanus is coming home after his victory at Corioli, drags in, without the least appropriateness, this sneer at the profession:

> "A letter for me! it gives me an estate of seven years' health; in which time I will make a lip at the physician: the most sovereign prescription in Galen is but empiricutic, and, to this preservative, of no better report than a horse-drench."
>
> II. i. 127-30.

Dr. Bucknill's comment on this passage is typical of the mode of thought which sees an appreciative testimony in every allusion that Shakspere makes to doctors. He says: "Menenius describes the health preserving effect of the pleasure it affords him, in terms which convey the poet's high appreciation of Galen, the great medical authority of his own day."* The fact that Coriolanus, if he ever lived at all, had been dead nearly six hundred

* *Op. cit.*, p. 207.

years when Galen was born did not trouble Shakspere. Galen at the present day would have been an excellent family doctor. He had a high opinion of Hippocrates, whose surgical prowess he does not seem to have emulated, although he was much given to surgery which did not involve operation. Galen is the last great name in Medicine for many centuries, and very little advance seems to have been made in the art till well on into the nineteenth century.

Paracelsus, who is coupled with Galen as one whose followers were not equal to curing the fistula of the king in *All's Well that Ends Well*, must be looked upon as a bit of a quack, although by his knowledge of chemistry he added considerably to the resources of pharmacy. It was through him that calomel and opium were generally used internally; but although he had a nostrum which would secure him from the fate of death, it did not keep him alive more than eight-and-forty years. Shakspere most appropriately names Paracelsus as the representative of a school opposed to that of Galen, whose works Paracelsus had publicly burned. But it was not only those specifically named as of the schools of Galen and Paracelsus who had given up the king's case, but he had also been "relinquished of all the learned and authentic fellows that gave him out incurable." (II. iii. 14, 16.) These, who would be disciples of Galen, had been previously referred to by the king himself as "our most learned doctors," and he goes on to say:

> "The congregated college have concluded
> That labouring art can never ransom nature
> From her inaidable estate." II. i. 120-2.

When Shakspere wrote the words "congregated college," no recent institution was in his mind. The College of Physicians had been established in 1518, and the nearest

act of incorporation of a medical body had been that in 1540, which united the Barbers' Company and the Guild of Surgeons as the Company of Barbers and Surgeons.

The king in *All's Well that Ends Well* is a French king, but that would not have prevented Shakspere from putting in English touches. But the congregated college to which he alludes probably has no definite meaning, although in 1603 "the College of Physicians in the University of Paris, being lawfully congregated," not only judged Turquet de Mayern unworthy to practise because he had publicly identified himself with the tenets of the chemical school of Paracelsus, but forbade all who were of their "Society" to hold consultation with him.

The mention of this Frenchman brings one conveniently to Dr. Caius of *The Merry Wives of Windsor*, because it has been sought to show that this "renowned French physician," as Master Page in the play calls him, was intended by Shakspere to represent Turquet de Mayern, who was known to English people as Sir Theodore de Mayerne. But Mayern did not settle in England till 1610, although he was here in 1606. He was appointed first physician to James I., and took a high place in professional life. He was a man of moderate views, and was able to see good both in the views of the old-fashioned practitioners and the chemical reformers. He was about the last man in the world that Shakspere would have burlesqued as the doctor of *The Merry Wives;* and as the first sketch of the play (in which Caius appears) was printed in 1602, it may be concluded that there is no connection between the two personages.

An attempt has been made to show that Shakspere meant to portray the well-known Dr. Caius whose name is connected with a "munificent foundation at Cambridge."

But Dr. Caius was a man held in high honour, whom there was no occasion or need to satirise. He was an Englishman born, and when the play was written he had been dead thirty years.

This fancy may also be completely dismissed. The truth probably is, that Shakspere wanted to poke fun once again at a Frenchman, and took this name as that of a doctor well remembered, but about the details of whose history he knew little and cared less.

There is one point which seems to connect the doctor in *The Merry Wives* with Caius of Cambridge. The doctor and the Welsh parson are by no means friendly in their inter-communications. "Dr. Caius in the statutes of the college founded by him specially excludes persons who are Welshmen from holding any of his Fellowships."* But this is probably a mere coincidence.

The only actual living doctor that Shakspere introduces among his *dramatis personæ* is Dr. Butts, physician to Henry VIII. He appears, not in his medical capacity, but as a sympathiser with Cranmer disrespectfully treated by his judges. The king, when he hears from Butts the details of this treatment, becomes more strongly than before the friend and advocate of Cranmer. The portrait of Dr. Butts, whom Henry VIII. knighted, is preserved in a picture† by Holbein, which is now in the Hall of the Barbers' Company. Butts is the foremost figure of the three on the right of the king. Henry VIII. was generous with other people's property to an extent perhaps unequalled by any other being, and

* Hunter's *Illustrations of Shakespeare*, Vol. I., p. 210. 1845.

† For a representation of this, taken from South's *Memorials of the Craft of Surgery in England*, I am indebted to the courtesy of Messrs. Cassell and Company South's book is full of interest for doctors. A notice of it appeared in the *Bristol Medico-Chirurgical Journal*, Dec., 1886.

HENRY VIII. PRESENTING A CHARTER TO THE BARBER SURGEONS OF LONDON.
(*From the Painting by Holbein.*)

on Butts he bestowed rich gifts of abbey-lands. Medical knights of to-day have to be content with the bare honour.

In addition to these actual personages, Shakspere has many creations of medical men; and in one of these instances he is an example that might at the present day be occasionally followed with much propriety. In *Pericles*, he who tells us (III. ii. 31-2) that "I ever have studied physic" is a lord of Ephesus. A medical peer is to us in England such a creature of the imagination that it is difficult to draw him in definite outline, and much more so to fill him in with colours. But it was not so shortly after Shakspere's day. A noble contemporary of his, who outlived him many years, has the honour of having his name associated with Medicine. Henry, Lord Marquis of Dorchester, Earl of Kingston-upon-Hull, and Viscount Newark, after a long illness which familiarised him with doctors and physic, at the age of forty-three brought his great talents to bear upon the study of Medicine, and he became a Member, and then a Fellow, of the Royal College of Physicians. He nearly met his death by inadvertence. Dr. Goodall, in a MS. which is in the College of Physicians' Library, says: "In the morning, as soon as he was out of bed, he did often use to take a cordial electuary of his own prescribing; and at this time calling hastily for it, his stomach not being very well, the woman that kept it, amongst many other things of this and the like kind, by her over-diligence and haste mistook the gallipot, and instead thereof brought a pot of the extractum cardiacum, an excellent medicine taken in a due proportion; but he took so large a dose of it that his physicians judged he had taken near 100 grains of opium, which is one ingredient that medicine is compounded of. Within less than a quarter of an hour he

grew heavy and dozed, and so into a dead sleep. This mistake was not discovered for three hours; when presently his coach was sent from Highgate, where he was then at his house, for Sir John Micklethwaite and Dr. Browne, with an account of this accident, who presently repaired to him, and found him in all appearance never to be recovered; the medicine was dispersed into the habit of his body, and they thought he would depart in this sleep; but using their utmost endeavours, by forcing down something to make him vomit, and a clyster into his body, he did evacuate plentifully downwards, and after twenty-four hours came somewhat to himself again, and in three or four days' time to good understanding."* The case is not recorded with Hippocratic exactness; but if it represents the facts, we have an instance of a medical peer showing a tolerance of a drug which certainly has never been shown by a doctor of less exalted rank. The day seems far distant when we may have the opportunity of trying such a dose on another medical member of the House of Lords, although our life-saving profession ought to have been one of the first from which additions should have been made to that august assembly. If the tenure of the Presidential Chair of this Society were to be rewarded with a well-endowed peerage, it would not be too great a recompense for the labour which it has cost some of us to prepare our introductory addresses.

In addition to this medical marquis, who was a great benefactor of his college, it is stated by Dr. Bucknill, who quotes from Ward's *Diary*, that "Edmund, Earl of Derby, who died in Queen Elizabeth's days, was famous for chirurgerie, bone-setting and hospitalitie."† I have

* *The Roll of the Royal College of Physicians.* 2nd edition. Vol I. pp. 289–90. 1878. † *Op. cit.*, p. 276.

found no other mention of his professional habits, which were probably of an amateur character. In our own times we have a member of a continental Royal family practising a specialty with much success.*

The practitioners introduced by Shakspere are physicians who, as a class, are still, in popular estimation, higher in repute than surgeons. The reason of this is not difficult to discover. The clergy in early days monopolised all professions, and were the depositaries of everything that was good, and, in later monastic times, of much that was bad. After practising surgery for a long period, the religious sentiment became offended by the shedding of blood, and a papal edict † went forth that no operations were to be performed which involved such a result. The medical ecclesiastics, whilst rendering obedience to their spiritual authority, were wise in their generation; no longer able to perform the surgical operations themselves, they determined to retain some hold over the procedure. Barbers, who were largely employed for tonsorial purposes, seemed to furnish a class intellectually enough lower than the clergy to be kept in submission, and yet possessing that steadiness of hand and familiarity with cutting instruments which would render them ready pupils in such operations as may be required. These operations were carried out in the presence of those who were restricted to the medical part of the profession, and so well was their relation maintained, that notwithstanding the aggressive efforts of the successors of the monastic barber, and the forefathers of the modern surgeon, the College of Physicians, as late as 1632, "procured an order of council with a clause to the effect that no chirurgeon 'doe either dis-

* *Good Words.* July, 1887. † By Innocent III., in 1215.

member Trephan the head, open the chest or Belly, cut for the stone, or doe any great opperation with his hand uppon the body of any person to which they are usually tyed to call their Wardens or Assistants, but in the presence of a learned physitian one or more of the College or of his Majties physitians;'"* and it was not till 1635 that this order was cancelled by Charles I. Such was the abject condition of the operating surgeon in Shakspere's days, and therefore it is no wonder that all his medical personages are physicians. The steps by which the developed monastic shaver was able to attain a position by which he could throw off this yoke, I will touch upon when I come to Shakspere's allusions to Surgeons.

In the year 1607, when Shakspere was forty-three years of age, his daughter Susanna married Dr. John Hall, who was in practice at Stratford. Collier thinks that when Shakspere came back to Stratford and settled in 1608 in New Place—the house which he had bought in 1597, and in which he died in 1616—that Dr. Hall and his wife lived there with him. In his will Shakspere left New Place to Mistress Hall, and there is positive evidence they were living there the year after Shakspere died. Dr. Hall was in good and large practice, as we know from the names of those whom he attended, of whom he speaks in the book, "Select Observations on English Bodies or Cures Empirical and Historical Performed on very eminent Persons in Desperate Disorders. First written in Latine by Mr. John Hall, Physician, of Stratford, where he was very famous, as also in the counties adjacent. Now put into English for common benefit by James Cook, Practitioner in Physick and Chirurgery. 1657." This was twenty-two years after Dr. Hall's death.

* South's *Memorials of the Craft of Surgery in England*, p. 215. 1886.

Confirmation of the belief that Dr. Hall took a high position is also found in the fact that his daughter—his only child—married, as her second husband, John Bernard, who was afterwards knighted by Charles II. in 1661; and in 1669, in the person of Lady Bernard, the lineal descendants of the poet came to an end.

No man is a hero to his own valet, and probably no doctor is a hero to his own father-in-law, especially if they live together. If this was true in reference to Shakspere and Dr. Hall, it would go far to explain some of the slighting and needless allusions to medical practice that so frequently appear in the plays.

I will now run through the list of Shakspere's physicians, taking the plays in their approximately chronological sequence, in order to see if, with the maturity of his powers, he saw any reason to regard them in varying lights.

In *The Comedy of Errors*, Pinch, described as a schoolmaster, takes upon himself the functions of an alienist physician, and is appealed to by Adriana to restore her husband to the senses which she supposed he had lost, as by that time in the play (Act IV.) he had got considerably mixed up with his twin brother, whom he accurately resembled. Pinch professes to diagnose the complaint by the state of the pulse and the pale and deadly look, and then, by means of his holy prayers, proceeds to remove the devil by whom he considers the man to be possessed. Finding this does not remove a non-existent disease, he orders restraint in a dark room—the routine treatment of lunacy—about which I shall have something more to say under the head of Mental Disease. Pinch is described as a schoolmaster,* one of a class who, being of superior

* The offices of schoolmaster and exorciser of spirits were often combined in one person. See references in Ben Jonson's *The Staple of News*, I. ii. and III. ii.

education, were credited with the power of dealing with spirits. In *Hamlet*, Marcellus requests Horatio to converse with the ghost of Hamlet's father, saying, "Thou art a scholar; speak to it, Horatio." From these passages it is seen that it was not the invariable rule to address spirits in Latin. Pinch is an unadulterated specimen of a humbug, who endeavoured to make capital by assuming powers which he did not possess. He is graphically described as

> "a hungry lean-faced villain,
> A mere anatomy, a mountebank,
> A threadbare juggler and a fortune-teller,
> A needy, hollow-eyed, sharp-looking wretch,
> A living-dead man." V. i. 237–41.

In him Shakspere exposes the irregular practitioner rather than the true physician.

In *Romeo and Juliet*, Friar Laurence does some impossible amateur doctoring in administering a drug to Juliet which, amongst other wonderful effects, can stop the pulse for two-and-forty hours. Shakspere, no doubt, fully believed this, which he took from the poem of *Romeus and Juliet*, translated from the Italian of Bandello by Arthur Brooke.* Friar Laurence, who thus unites two professions, recalls the early monks, who were ecclesiastics and doctors. His observations on the plants and flowers he gathers will be more appropriately considered under the head of Materia Medica.

The Merry Wives of Windsor is the earliest play in which there is a doctor among the characters. Here is Dr. Caius, to whom I have already made some reference. Dismissing all fanciful allusions to actual individuals, I shall look upon him simply as a portraiture of a practitioner with whom Shakspere came into contact, and in which he caricatures

* "No pulse shall goe, ne hart once beate within thy hollow brest,
But thou shalt lye as she that dyeth in a traunce."

the pretensions of the medical profession. It must be remembered that English practitioners were then very intolerant of foreigners who came here to practise their art, especially if they were bigger charlatans than themselves. In *The Return from Parnassus*, a University play in which Shakspere is mentioned by name, occurs the expression, "We 'll gull the world that hath in estimation forraine phisitians." Caius is introduced (I. iv. 45) sending for his "*boitier vert*" or his "green-a box." What this contained is doubtful. It may have had some instruments or appliances,* but more probably contained drugs,† which he could administer and charge for on the spot. He makes a brag of his surgical powers, and he threatens to remove the testicles of Sir Hugh Evans (I. iv. 118), whose interference in his love-matters he strongly resents. This is a piece of surgical braggadocio. His line is more correctly described by the language of the host, who, when the thought comes across him that his doctor may be killed in the duel, says, "Shall I lose my doctor? No; he gives me the potions, and the motions." (III. i. 104–5.) Probably in his vocation as landlord of the Garter Inn, he found a free and frequent purgation exceedingly beneficial.

Viewed in the light of clinical investigation of to-day, there are one or two references to Caius and his practices —connected with allusions in other plays—that are of great interest. Caius is called "bully stale" (II. iii. 30), "a Castalion-King-Urinal" (II. iii. 34), "Mounseur Mock water" (II. iii. 60); and about his head Evans twice

* Cf. *Troilus and Cressida*, V. i. 12.

† See l. 65. In the 1602 version of the play Caius sends for "de oyntment," and says:

"O I am almost forget
My simples in a boxe."

(III. i. 14, 91) threatens to knock his "urinals." In *The Two Gentlemen of Verona* (II. i. 39-43), Speed, telling his master of the evident signs of love which he shows, says "these follies are within you and shine through you like the water in an urinal, that not an eye that sees you but is a physician to comment on your malady." Falstaff, anxious about himself, sends a specimen of his urine to the doctor, and the messenger comes back telling him that the doctor said "the water itself was a good healthy water; but for the party that owed it, he might have more diseases than he knew for." (*2 Henry IV.*, I. ii. 3-6.) In *Twelfth Night* (III. iv. 114), Fabian and the others, desirous of knowing the condition of Malvolio and the prognosis, agree to "carry his water to the wise woman." Macbeth, with a sense of his country's impending danger, metaphorically says to his wife's medical attendant:

> "If thou couldst, doctor, cast
> The water of my land, find her disease,
> And purge it to a sound and pristine health,
> I would applaud thee to the very echo."
>
> V. iii. 50-3.

When we consider the importance which is now attached to examination of the urine, it appears strange that the attempt to thus diagnose disease, to which all these are references, should have brought its practitioners into great disrepute and infamy. But the fact is, that they attempted to be wiser than they actually were, and this is always a dangerous proceeding. They professed to name the complaint from a mere inspection of the secretion; and to such an extent was this practised, that the College of Physicians had more than once to interfere and frame statutes concerning it. If these "learned and authentic fellows" were to rise from their graves, it would probably take a long time to convince them that

the multiplicity of tests applied to the urine now-a-days were being used with scientific precision. But even the results of modern investigations have been over-valued; to take an instance—the mere discovery of albumen has not the same importance attached to it that it had a few years ago. "Stale," in the phrase "bully stale," is another word for urine. Cæsar, lamenting over Antony's emasculated powers, recalls the time when, in the hardships of warfare which he had borne uncomplainingly, Antony had drunk "the stale of horses." (*Antony and Cleopatra*, I. iv. 62.) The urinal referred to in *The Merry Wives of Windsor* and *The Two Gentlemen of Verona* was the glass vessel in which the urine was reserved for inspection. It was learnedly known as the *matula*.

The intention to present Malvolio's urine to the judgment of "the wise woman" shows that this branch of professional work was also carried on by women in Shakspere's days, who, as a sex, had practised Medicine in earlier times. The modern return to this old custom, coming to us as a novelty, brought with it a shock from which we now seem to be recovering, and it was accompanied by a violence of language that was much to be deplored.

In *All's Well that Ends Well*, the reputation of Gerard de Narbon, a man famous in his profession as doctor, is mentioned. His remedies were such that they did not require a skilled person to apply them, for they were successfully used by his daughter, who had inherited his prescriptions; and his armamentarium was probably labelled for particular diseases, resembling some hospital preparations which were formerly known as "Mistura Tussis," "Mistura Febrifuga," and the like, and which could be administered by anyone who could turn the tap

of the jar containing them. The details of the king's malady, and the conduct of his successful medical attendant, I shall refer to on another occasion. Shakspere took from Boccaccio the incident of the cure of the king by the daughter of a dead physician, when all the medical attendants he could obtain had failed. But his endorsement of the story cannot be considered a compliment to the profession.

The doctor in *Lear* is the first medical man in the plays for whom one does not entertain contempt. *Lear* must have been written about 1606; and as we have seen that Dr. Hall married Shakspere's daughter in 1607, it would seem that when the poet and the physician were brought more together, Shakspere put into a play, for the first time, a respectable practitioner, and not a burlesque representation of a doctor. This, of course, would not prevent him introducing some banter at doctors and their ways. Lear's medical attendant is only introduced to administer a sleeping-draught to the distraught patient. (IV. iv.) He has no marked individuality, and is peculiarly inoffensive; perhaps defers a little too much to his royal patient's daughter as to the time when he should awake the sick man; but Cordelia, as a sensible woman, gives him confidence by saying:

> "Be governed by your knowledge, and proceed
> I' the sway of your own will." IV. vii. 19, 20.

In *Macbeth* there are two doctors—an English one and a Scotch one. The English doctor appears only to announce that his king is coming forth to cure by touch "a crew of wretched souls" suffering from the disease here called "the evil." (IV. iii. 140–6.) Dr. Bucknill says the physicians were "either sufficiently ignorant or sufficiently polite, not to doubt, or not to appear to doubt,

the possession by our kings of this miraculous therapeutic power." Shakspere gives the incident as he found it in Holinshed, from whom the historical record was taken. The Scotch doctor, like his modern antitype, is a shrewd practitioner. Coming to observe for himself the condition of Lady Macbeth, he refuses to take anything upon hearsay. He endeavours for the benefit of his patient to get the gentlewoman to tell him all she knows about the case, and then, when he is able to observe for himself, like a wise man, he makes a note at the time of what he hears. He is an honest man, and plainly says the case is not one for his treatment, as the symptoms all point to a distressed conscience; and this fact brings home to him his own shortcomings and sins, and pathetically he murmurs, "God, God, forgive us all." And then as a parting injunction he leaves an admirable piece of advice, that although the cause of the disease is beyond his reach, it may be aggravated by injudicious surroundings, and as long as her mind-torture leads her to walk in her sleep, she is exposed to physical dangers, and her attendants should "still keep eyes upon her." (V. i.) To the husband he reports in concise form the result of his enquiry, and reiterates his inability to deal with the case. The last we hear of him is a somewhat timid fear, excusable perhaps, that some foul play may be practised upon him, which even a big fee would not tempt him to risk by returning. (V. iii. 37–62.) Most likely Macbeth had not paid him anything. Altogether there is in this Scotch doctor much to be admired. His acts and demeanour would make the subject of an excellent address for students.

I have mentioned Cerimon in *Pericles* as the only one of Shakspere's doctors who can be classed among the

nobility. His ways are, however, more amateurish than professional. His whole language is strained, and he is more a magician than a physician. He had

> "heard of an Egyptian,
> That had nine hours lien dead,
> Who was by good appliance recovered."
> III. ii. 84–6.

Dr. Bucknill gets over this difficulty by saying it is not to be taken literally, but that Shakspere meant "that the man had lain nine hours as dead." But a writer who could believe that there existed a drug of such marvellous power as that given to Juliet, could have no difficulty in bringing a man round who had been dead only nine hours. There is great doubt about the authorship of *Pericles*. It was not included in Shakspere's works till the third folio. I would fain believe that he had nothing to do with the creation of Cerimon.

Cornelius, described in *Cymbeline* as a physician, is upon his first appearance more of an apothecary. He is employed by the queen to bring poisons, with which she alleges she wishes to try experiments on the lower animals. He, good man, suspicious of her intent, gives her drugs which are only mild narcotics, and not what she imagines them to be. When he re-appears, at the end of the play, with the news of the queen's death, he seems to be more a friend of the family than a medical attendant.

Whilst the much-to-be-commended observation of the king in *All's Well that Ends Well* (II. i. 122–5)—

> "I say we must not
> So stain our judgment, or corrupt our hope,
> To prostitute our past-cure malady
> To empirics"—

may lead one to suppose that Shakspere had great respect for the authorised practitioner, it must be remembered

that after all the king did that which he said he was not going to do, and that any way the importance of the passage is but comparative.

An examination of the following passages will show that Shakspere did not hold regular physicians in very high repute:—

Mistress Quickly, in *The Merry Wives of Windsor*, urging to Mistress Page the merits of Fenton as a suitor of her daughter Anne, said, referring to Caius:

> "Will you cast away your child on a fool, and a physician?"
> III. iv. 100–1.

Bertram gives expression to a similar statement:

> "A poor physician's daughter my wife!"
> *All's Well that Ends Well*, II. iii. 122.

Lafeu, giving to the Countess of Rousillon a reply to her enquiry for the king's health, says:

> "He hath abandoned his physicians, madam; under whose practices he hath persecuted time with hope, and finds no other advantage in the process but only the losing of hope by time."
> *All's Well that Ends Well*, I. i. 15–18.

Either Shakspere or Richard II. must have thought better of the physician's powers than of his morals, when the king, referring to old John of Gaunt, says:

> "Now put it, God, in the physician's mind
> To help him to his grave immediately."
> *Richard II.*, I. iv. 59, 60.

Timon says to the banditti:

> "Trust not the physician;
> His antidotes are poison, and he slays
> More than you rob."
> *Timon of Athens*, IV. iii. 434–6.

Posthumus, in *Cymbeline*, does not think much of medical efforts to cure the gout. Perhaps, if he were alive now,

he would not find them much more successful. When in prison, he says:

> "Yet am I better
> Than one that's sick o' the gout; since he had rather
> Groan so in perpetuity than be cured
> By the sure physician, Death." V. iv. 4–7.

"Death will seize the doctor too" is such an obvious truism, that Cymbeline would certainly not have told Cornelius so (V. v. 29), unless with the intention of lowering the physician's self-importance.

And for the surgeon, Shakspere has the same uncomplimentary allusion. In *The Tempest*, when the passengers escaped from shipwreck are reviewing their position, Gonzalo, commenting on the inopportuneness of a remark of Sebastian's, says:

> "You rub the sore
> When you should bring the plaster."

Upon which Antonio adds, as a biting sneer:

> "And most chirurgeonly." II. i. 138–40.

Shakspere's references to surgeons are not to individual practitioners. One illustration is thereby afforded of the low estimation in which they were held in his day. Those whose merits were supposed to consist, as their name implies, in mere manual dexterity, were of course thought less of than those who had to apply mental processes to the determination and cure of disease. There was in Shakspere's time much need for the advocacy of Paré,* who in his "Works" eloquently, and with much acuteness, says:

"*Seeing there be three parts of Phyſick which at this time we profeſs;* Chirurgery, *which by the uſe of the hand*, Diet *which with the convenient manner of feeding and ordering the body, and* Pharmacy *that by Medicins attempt to expel Diſeaſes*,

* Paré died in 1590, just as Shakspere was beginning his literary life.

and preſerve Health; The prime Phyſicians do not without reaſon contend which of theſe may be accounted the chief. Certainly Herophilus *had* Pharmacy *in ſuch eſteem, that he thought Medicins were firſt mixed and adminiſtred to the Sick by* Apollo *(whom Antiquity thought a great Deity.) And* Pliny *had ſo great an opinion of* Diet, *that he exclaims, The true Remedies and Antidotes againſt Diſeaſes, are put into the Pot and eaten every day by the poor People. Verily all learned men confeſs, that the manner of curing which which is performed by Diet, is much more facil and proſperous than that which is done by Medicins; as thoſe things which ſought with much labour and coſt are taken with much loathing, and taken are ſcarce retained, but retained they oft work with much labour and pain: Which things long ago moved* Aſclepiades *to exclude the uſe of Medicins as hurtful to the ſtomach. Yet if we will believe* Celsus, *neither of theſe parts merit the prehéminence, but both of them give place to* Chirurgery. *For ſeeing that Fortune is very powerful in Diſeaſes, and the ſame Meats and Medicins are often good and often vain, truly it is hard to ſay, whether the health is recovered by the benefit of Diet and Pharmacy, or by the ſtrength of the body. Moreover in thoſe caſes in which we moſt prevail with Medicins, although the profit be moſt manifeſt, yet it is evident that health is often ſought in vain even by theſe things, and often recovered without them. As it may be perceived by ſome troubled with ſore Eyes, and others with Quartan Fevers, who having been long troubled by Phyſicians, are healed without them. But the effect of Chirurgery as it is very neceſſary, ſo it is the moſt evident amongſt all the parts of Phyſick. For who without Chirurgery can hope to cure Broken or Luxated parts, who Wounds and Ulcers, who the Falling of the Matrix, the Stone in the Bladder, a Member infeſted with a Gangrene or Sphacele? Beſides, this part alſo is the moſt antient; for* Podalirius *and* Machaon *following their General* Agamemnon *to the* Trojan *Wars, yielded no ſmall comfort to their Fellow-Souldiers. Whom notwithſtanding* Homer *affirms not to have given any help in the Peſtilence, nor in divers*

other Diſeaſes, but onely were accuſtomed to heal Wounds by Inſtruments and Medicins. And if the difficulty of learning it argue the excellency of the Art, who can douht but Chirurgery muſt be the moſt excellent, ſeeing that none ought to be accounted a Chirurgeon, or which can perform his duty without the knowledge of Diet *and* Pharmacy? *But both the other can perform their parts without Chirurgery, if we may believe* Galen. *But if we conſider the matter more nearly according to truth, we ſhall underſtand thoſe three parts have a certain common bond, and are very near of kindred, ſo that the one implores the aid of the other; neither can the Phyſician do anything praiſe-worthy without the conſpiracy and joint conſent of theſe three; therefore in ancient times there was but one Performer and Uſer of all the three Parts. But the multitude of men daily increaſing, and on the contrary, Mans life decreaſing, ſo that it did not ſeem able to ſuffice for to learn and excerciſe all the three, the Workmen divided themſelves. Wherefore that which happens to any man either by lot, or counſel, that let him follow, maintain and onely uſe, as mindful how ſhort his life is, and how long the Art.*"*

The barbers, whom the clergy had employed to perform operations, naturally, as time went on, were unwilling to continue their position as mere handicraftsmen, and were jealous of the success of those "surgeons who were not shavers." They succeeded, upon petition to the Court of Aldermen of the City of London, in getting their rights recognised by authority. Thus there were two authorised sets of men practising surgery—those licensed by the Guild of Surgeons, and those belonging to the Guild of Barbers. The Barber-surgeons went on improving their position, till, in 1540, in the reign of Henry VIII., an Act of Parliament was passed forming the Barbers' Company and the Guild of Surgeons into

* This extract is taken from the preface to the 1634 English edition The whole of the preface should be read.

the Company of Barbers and Surgeons. The union continued till 1745, more than two centuries. The difficulties of this incongruous alliance are well chronicled by South.*

In 1745 the separate Surgeons' Company was formed, and this lasted till 1796. In 1800 the Royal College of Surgeons of England was established by Royal Charter. Surgeons have not yet, in lay opinion, quite recovered from the relative inferiority engendered by attention being too greatly directed to their manipulative dexterity, and their long association with the barber.†

But the salvation of the surgeons, if we are to believe one authority, is to come from an unexpected quarter, and, as in the case of the re-uniting of the Colleges of Physicians and Surgeons, history is to repeat itself. At a meeting of the Hairdressers' Guild, held at St. James's Hall, London, the lecturer said:

> "Our services are indispensable, and the world cannot do without us. It is now more than 140 years since we separated ourselves from the surgeons, but there may come an age in which we shall be re-united."‡

Irrespective of the definite acts the surgeon has done, or is to do, there are some general references to surgeons, but these are mostly of a commonplace or metaphorical character.

Duncan's injunction to get "surgeons" for the bleeding sergeant in *Macbeth* does not imply that there was need of assistance or consultation, but was probably only a part of that regal and noble magnificence which gives orders on a large scale, and which led Capulet to issue an order for twenty cunning cooks. In Lear's case, the desire to

* *Memorials of the Craft of Surgery in England.*

† A Boston man, who had evidently suffered much at the hands of his hairdresser, says that if surgeons are no longer barbers, many barbers are still surgeons.

‡ *Western Daily Press*, Oct. 2, 1886.

have "surgeons" was probably more real. Perhaps the most natural of all these indefinite allusions is where Mercutio, fatally stabbed by Tybalt, having called for a surgeon, goes on to say, in answer to Romeo's wish that the hurt cannot be much:

> "No, 'tis not so deep as a well, nor so wide as a church-door; but 'tis enough, 'twill serve: ask for me to-morrow, and you shall find me a grave man. I am peppered, I warrant, for this world. A plague o' both your houses! 'Zounds, a dog, a rat, a mouse, a cat, to scratch a man to death! a braggart, a rogue, a villain, that fights by the book of arithmetic! Why the devil came you between us? I was hurt under your arm. . . .
>
> Help me into some house, Benvolio,
> Or I shall faint. A plague o' both your houses!
> They have made worms' meat of me: I have it,
> And soundly too: your houses!"
>
> *Romeo and Juliet*, III. i. 99–113.

To another occasion I must leave the development of the Apothecary, with Shakspere's mention of him, and also all the references to the subsidiary branches of our profession.

Although it will have been gathered from what I have said that the extravagant claims put forward for Shakspere's insight into medical matters cannot be allowed, yet, as medical men, we should learn this much from him: that we shall be helping forward our art if we copy his faithfulness in noting the facts that come under observation; endeavouring, even if we can only do so in a lamentably imperfect way, to imitate his conciseness of language, and, by a careful study of his works, to breathe in something of the spirit of that mode of expression which his incomparable language has marked as the standard by which we should judge our own puny efforts, and to the height of which we should be always endeavouring to raise ourselves. Medicine of Shakspere's period

must not be judged by the knowledge of to-day. If our art has not advanced since then, both in theory and practice, the sooner we leave our patients to the unalloyed benefits of the *vis medicatrix naturæ* the better for them. But those who seek to credit Shakspere with any special medical knowledge seem to me to do so to the disparagement of our profession,* which is not so poor a one that it can be expounded by him who has merely powers of observation and felicity of expression. There are fundamental principles (for instance, of anatomy and physiology) without an acquaintance with which the practitioner is walking a path beset with pitfalls, into which he is in constant danger of being entrapped. A knowledge of our profession cannot be obtained from books only: there must be clinical experience, with the voice of the living teacher to guide the learner through the intricacies of the elemental training. And of these necessities we know that Shakspere had none.

But, profiting by the example of his manner, let us go on accumulating facts, and be in no hurry to formulate theories. We have to possess our own souls—and other people's bodies—in patience. It is given to very few of us to do great things in our profession. It must be left to geniuses to systematise the observations of those who can be only humble labourers, and most of us will have to be content with being classed amongst these, who, however, are necessary in the economy of the world's progress.

Maybe there is not in the human body an undiscovered foramen or canal by which our name can be immortalised; and when painstaking efforts differentiate a new set of symptoms, or vanity leads to the modification, in a trifling

* This I hope to show in detail in another paper.

manner, of the existing satisfactory steps of some operation or mode of treatment, I hope we shall protest against the fashion of labelling such by the unscientific attachment of a personal name which to succeeding generations will connote nothing. By those who are to have an enduring influence, self must be kept in the background, and the attainment of scientific truth be made a constant study. Animated by these principles, we shall add both to the dignity and usefulness of our calling, and shall leave the world, professionally at all events, better than we found it.

My task to-night has been a humble one. It has not come within the scope of my capacity to fire your imagination with fanciful theories of healthy or morbid processes; or to record with a fervid enthusiasm the personal achievements of myself or others; or to dilate with a glowing imagery on the stupendous possibilities of the future; or to stir you to sudden mutiny because this or that fossilised corporation is said to inflict upon you wrongs of which you were not conscious till you were told about them. But if I have succeeded either in intensifying your regard for the history of a period fraught with the highest importance to our intellectual life or in directing your attention to one aspect of a great writer's work full of instruction and example for medical men; or even if I have incidentally renewed your interest in the (now lost) art of dramatic writing, in which it seems Shakspere is ever to stand without a rival, my ambition will have been more than satisfied.

OBSERVATIONS ON SOME OF THE NEW HYPNOTICS.*

BY

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I am induced to read this short paper, believing that the facts hereafter to be mentioned cannot fail to interest you, therapeutically as well as clinically.

In the daily work of your lives as general practitioners, it must often happen that your individual minds are anxiously exercised in the selection of a hypnotic, more especially when you have, as not infrequently happens, to prescribe for the premonitory symptoms of mental disease; and it is hoped that the following short *resumé* of personal and collected facts will assist you in moments of anxiety and great responsibility.

The field of my labours is limited, yet extensive; for although I am denied the compensating advantages of a country doctor's life,—which subject was so ably advocated by our late lamented President (Dr. Dyer),—I am, nevertheless, fully repaid by the opportunities afforded me for studying the physiological effects of any one remedy or remedies over a long series of administrations, which, as you all well know, can only be satisfactorily followed up in an institution.

* Read at a meeting of the Dorset and West Hants Branch of the British Medical Association.

I make use of the expression "some of the recent hypnotics" for I cannot even name, far less write of, many that are from time to time brought under our notice in the pages of the medical journals.

Those I propose shortly discussing are: hyoscyamine, paraldehyde, urethane, and the hydrobromate and hydriodate of hyoscine.

The first, *Hyoscyamine*, is not by any means a recent remedy in the treatment of mental diseases, but is so little used, except by those whose sphere of labours is confined to the wards of an institution for the insane, that I think its efficacy, in the treatment of chronic, as well as recent, cases of mental excitement, should be more generally known; and thus ensure a wider and more varied trial, of a valuable drug, which, in reliable hands, is not more dangerous than several of the older sedatives.

There are two preparations of hyoscyamine in use—the crystal, and a liquid extract. I prefer, and always use the extract. The most reliable preparation of the liquid extract is that known as Mercks's—expensive, but when made into a concentrated solution is easily dispensed, and will retain its strength for a long time. A convenient solution is 1 in 64. The dose of the extract is $\frac{1}{32}$ to $\frac{1}{2}$ gr., but seldom will you have to give more than $\frac{1}{8}$ gr. The disagreeable taste can be overcome by syrup and rose-water, or better still by dropping 4 mins. $= \frac{1}{16}$ gr. of the concentrated solution on a lump of sugar.

In giving hyoscyamine you must select your cases. When wakefulness is the result of surgical or accidental pain its use is not to be recommended, but when due to recurrent cerebral excitement I believe you will find it a useful remedy, and the small dose is at all times a recommendation. Its physiological effects show themselves

much quicker than in the case of either bromides or chloral. When given continuously it is apt to accumulate and cause distressing dryness of the mouth and throat and other gastric symptoms.

The cases where you will find its use most serviceable are in strong robust individuals the subjects of acute maniacal excitement, in recurrent attacks of mental fury, and sometimes in the excitement accompanying chronic epilepsy. Give one small dose of $\frac{1}{10}$ gr., to be repeated in two hours if necessary, which is a preferable plan of treatment to the administration of one large dose or keeping the patient continuously under its influence.

Avoid its use in the weak and debilitated.

I must warn you against giving large doses, for although I have not seen an accident from its use, I have been on one or two occasions uncomfortably anxious. Certain well-known authors recommend $\frac{1}{10}$ gr. to be given subcutaneously. I have not practised this plan of administration. Its effects are variable, and you must not expect to have the satisfaction of witnessing rapid and profound sleep in every case.

Paraldehyde is comparatively a new hypnotic, and one that promises to be of much interest and value in the treatment of the various causes of wakefulness.

It stands in the same rank as chloral, but is much safer, acts quicker and gives a more natural sleep. Several gentlemen have written in high terms of its utility and safety. Like all new remedies, it is somewhat expensive. The dose is from 3j to 3ij. The name indicates its oily nature, and this is a difficulty which has to be met in prescribing. It is usually made into a draught by suspending in tragacanth powder, sweetened with syrup. I generally give it with whisky or brandy in the propor-

tion of 1 to 3. The oiliness disappears when mixed with the stimulant, which is I am convinced a most useful adjunct to every hypnotic.

In its action it is gradual, and should it fail to produce sleep, it does not excite. You have a near approach to natural sleep, from which the patient can be easily aroused, and falls off again. Its use is not followed by headache or gastric disturbance, but it continues to be excreted by the lungs for many hours afterwards. This is, by some, considered a great objection. Now it may be and no doubt is an objection, but, as one writer very truly says, "should we not rather look upon the disagreeable breath as a great safeguard against the clandestine use of the drug, and not in the light of an objection?" There is no accumulative principle in paraldehyde, and I have not met with a case of tolerance.

It, however, is a much more valuable hypnotic than many of those now in use; for I believe it can be given with safety and reliance, no matter how abnormal the rhythmical action or other functions of the bodily organs may be.

The class of cases where the use of paraldehyde is indicated is a large one, for if we except the insomnia due to acute mental excitement and severe pain, I believe we may employ it in all other instances of disturbed sleep. I would specially recommend it to your notice in the insomnia of—1, simple mania and melancholia; 2, nervousness and hysteria; 3, profound grief or mental anxiety, and in wakefulness attendant on mental or bodily overwork. One gentleman has prescribed it in gout and rheumatism with inexplicable advantage.

Urethane comes to us in crystals —almost tasteless, with a mousy odour, and is easily prescribed. At first the dose

was given as 15 grs., but except in cases of heart valvular disease where the patient cannot sleep from "fear," I have not found any dose under 40 grs. to be of use. It is not so certain in its action as paraldehyde, but I believe the after-effects to be less important.

The sleep is natural and refreshing, and in addition to its calmative influence on the nervous centres, it would seem to possess the power of restoring their tonicity, and is therefore to be recommended in the insomnia of aged persons, as well as in cases of heart-lesions.

At present I am somewhat disappointed with urethane. I have tried it in the various phases of mental disease and in many cases of insomnia unconnected with insanity, but cannot now signalise any one class of cases for its special use. Women are more susceptible to its action than men, and in two cases of melancholia occurring at the menopause, I was gratified and pleased with the result of its administration in drachm doses at night.

Hyoscine. There are two preparations in use, the hydrobromate and the hydriodate, and as far as my present experience goes they are equally efficacious as a hypnotic. The most convenient solution is 1 in 64 or 1 in 128, and the dose by the mouth ranges from $\frac{1}{128}$ to $\frac{1}{64}$ gr.

I have used it in the various forms of mental disease, but have found it of most service in cases of mania where the loss of sleep was due to continued mental excitement. I have seldom found it to fail, and am of the opinion that hyoscine will at no distant date take a first place among hypnotics.

It is easily prescribed, gives a refreshing sleep, and should not, in proper hands, produce any unpleasant after-effects. It possesses most value as a hypnotic pure

and simple. As a general nervine sedative it is not to be compared to the bromides. In insomnia due to melancholia, overwork or fatigue, I have found hyoscine less certain in its action than paraldehyde. In the November No. for 1886 of the *Practitioner* there is an able paper by Dr. Mitchell Bruce on hyoscine, and he there advises us to use it hypodermically. When given hypodermically its action is more rapid than when given by the mouth, but I question whether the latter is not the more preferable plan of treatment in the wards of an Asylum.

In the selection of a hypnotic our first and I may say our dutiful aim should be, to ascertain, often I admit under the greatest difficulty, the true cause of the patient's loss of sleep; and under this head we should note whether the case is one of simple restlessness or genuine wakefulness. In many cases the cause is so apparent as not to need deliberation, but in others it is quite as obscure.

Each of the hypnotics mentioned is equally valuable and reliable, but not in the same class of cases.

Just as we have distinct and easily recognisable remedies, so ought we in prescribing to recognise the widely differing types of insomnia, if we hope and expect to meet with success and reward, and not with disappointment and loss of confidence. Pardon me when I say I am driven to believe that the great and often unhappy difference of opinion—circulating in the ranks of our Profession, as to the value or non-value of a useful remedy, is more frequently due to an error of ours in the selection of cases, than to the inertness of the medicine employed.

When one gentleman of wide experience and high repute tells us that a certain drug has seldom failed him,

and another equally eminent disapproves of its use, how are we to explain and account for such diversity of opinion, unless we believe that the one who meets with good results gives the proper remedy, and that the other does not—*i.e.*, the one studies his case and prescribes accordingly, but the other does not study his case and prescribes accordingly.

There should be no haphazard practice in the use of hypnotics, nor should we depend too much on well-worn experience, for unless that experience be the result of vigilant, patient and accurate mental application and observation, it is not worthy of the name.

With the question of hypnotics is closely associated the great question of sleep, the physiology and pathology of which we yet know so little. One day the necessary and natural element of health, the next by its absence a symptom of disease.

I feel sure you will agree with me when I say, that seldom is the physician's art more severely taxed than when called upon to restore lost sleep :

> "Sleep that knits up the ravell'd sleave of care,
> The death of each day's life, sore labour's bath,
> Balm of hurt minds, great nature's second course,
> Chief nourisher in life's feast."

Clinical Records.

ON A CASE OF CYSTIC GOITRE TREATED BY "SHELLING OUT." By CHARLES TANFIELD VACHELL, M.D. Lond., Physician (formerly Surgeon) to the Cardiff Infirmary.

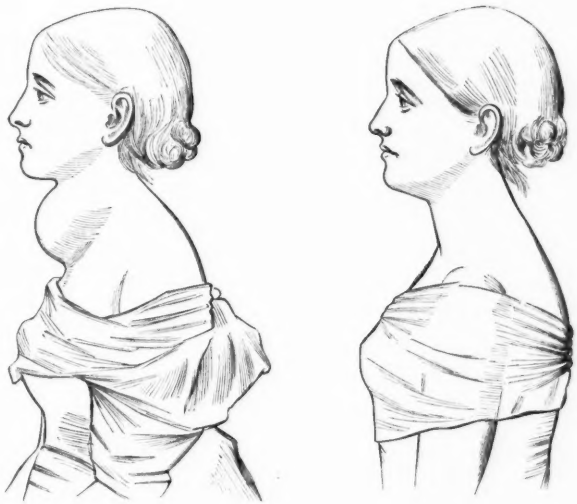
E. C., æt. 22, domestic servant, was admitted into the Cardiff Infirmary on October 19th, 1886, suffering from cystic tumour of the thyroid.

She first noticed the tumour about nine years ago, and since then it slowly and painlessly increased in size. Latterly it somewhat interfered with breathing, there being occasionally a choking feeling.

On admission the tumour was about as large as an orange, and occupied the front of the neck, inclining to the left side. It was painless, firm, and fairly movable, fluctuated distinctly, and rose and fell with deglutition. One rather large artery was felt entering at its right upper margin. An exploring needle was introduced, and it was found to be a single cyst and to contain fluid of a reddish colour.

It was decided to "shell out" the cyst, and on 27th October chloroform was administered, but the patient became so pallid that it was not considered advisable to proceed: four ounces of reddish fluid were then removed with the aspirator.

The tumour had quite filled again by 30th October; and on 3rd November, the patient having been etherised, an incision of about 2½ inches in length was made through the skin, over the most prominent part, and the cyst was shelled out without difficulty.



There was free hæmorrhage from two vessels, which were readily secured, and this done, there was no further trouble in the operation. A drainage tube was inserted, and the wound dressed with carbolic gauze. The tumour weighed 11½ oz., and contained 5½ oz. fluid. It measured 9 inches in circumference, and was unilocular; the walls were from ⅛ to $\frac{3}{16}$ of an inch thick.

November 6th. For some time after the operation the patient was much depressed; and during the night

the wound was twice dressed, in consequence of oozing of bloody serum.

November 7th. Wound puffy, some swelling of surrounding tissues of neck, otherwise doing well.

November 8th. Wound dressed with carbolic oiled lint, and dressing frequently changed.

November 9th. Slight cough during night, slight rattle from tracheal mucus collecting in throat. Wound looking well.

November 11th. Sutures removed and strapping applied. Boric ointment dressing.

November 13th. To get up. Swelling subsided.

November 17th. Wound healed, except at position of drainage tube.

November 23rd. Discharged cured.

Remarks.—In *The Lancet* of 3rd July, 1886, is published my first case of cystic goitre treated by the "shelling out" plan. The two cases were in many respects similar, but differed chiefly in the amount of hæmorrhage. In the first case this was serious, whereas in the case now recorded it was easily controlled. Hæmorrhage is the chief danger of this operation, and it is on this account that Morell Mackenzie advocates the conversion of the cyst into a chronic abscess. In the *London Medical Record* for December 15th, 1884, appeared a note from an article by Dr. H. Burckhardt, of Stuttgart, in the *Centralblatt für Chirurgie*, No. 43, 1884, on "shelling out" of the tumour in cases of cystic goitre with a single cyst. The author concluded with a brief analysis of seventeen cases in which he had applied this operation, usually for dyspnœa. The treatment in each of these cases was attended with good results. A valuable paper by Dr. Morell Mackenzie was read before

the Hunterian Society on 22nd January, 1872, in which the treatment by conversion into a chronic abscess was advocated in preference to extirpation; and recently (April 13th, 1887) Mr. T. Mark Hovell read a paper before the same Society supporting the same plan of treatment. Mr. Hovell is of opinion that "shelling out" exposes the patient to unnecessary risk, and mentions cases cured by him when the cysts contained 21 oz. and 10½ oz. of fluid respectively.

CASE OF ANEURISM OF ORBIT.

By A. W. PRICHARD, M.R.C.S., Surgeon to the Bristol Royal Infirmary.

I wish to record very briefly a case of traumatic aneurism of the orbit, treated eventually by ligation of the common carotid, in which the treatment has been partly, but not wholly, successful.

James Sparks, æt. 10, was looking through a keyhole on the 23rd of May, when a boy at the other side of the door pushed a piece of umbrella-wire through the keyhole into his eye. The wire, probably, was thrust deep into the orbit by the inner side of the eyeball. He was taken to the Infirmary at once, and detained. A small wound on the conjunctiva, and some blood under it towards the inner side, were the most noticeable signs of the injury. A few hours afterwards there was considerable ecchymosis; the globe was almost fixed, moving from side to side only about ⅛ of an inch; this, of course, was the cause of double vision, and, excepting that, the sight of the injured eye was unaffected.

During the first fortnight the ecchymosis was the only symptom—both lids were very dark, and the ocular conjunctiva had blood under it. The boy complained very little, and a cold pad was kept generally over the eye. By June 9th, however, I noticed that there was some protrusion, and a faint pulsation could be felt on putting the hand over the eyeball. On listening with a stethoscope on the eye, a loud bruit could be heard; this was audible all over that side, and faintly over the other side of the cranium. Moreover the boy complained of a blowing sound in the left ear.

Thinking the case was one of traumatic aneurism—or possibly of a blood-tumour pressing on the carotid artery, for three weeks I tried the effect of continuous pressure on the eyeball and ice around the orbit. This had the effect of ameliorating the diplopia—but accurate measurement from the forehead proved that the protrusion of the globe was increasing.

By July 4th the protrusion had increased so that the injured eye was as much as $\frac{11}{16}$ of an inch in front of the other. There was considerable chemosis, and blueness all round the orbit; the bruit was very marked, and pressure on the left carotid entirely stopped it; and the boy had headaches and restless nights. Accordingly, after consultation, on July 5th. I ligatured the common carotid on that side at the level of the cricoid cartilage. I had no great difficulty in the operation—the vein was large, and as it were enveloping the artery, and it had to be held carefully out of the way. I tied the vessel with medium-sized catgut, and put a small drainage tube in the wound, but did the operation without a spray.

In the evening after the operation no bruit could be heard and no pulsation felt, and the eyeball had receded

$\frac{1}{8}$ of an inch. During the next week the boy went on very well. The wound healed kindly and the eye receded, the double vision was less, and the chemosis and swelling of tissues round the orbit went down.

I kept him in the Infirmary for six weeks after, and was much disappointed at the return of the bruit, which was heard as early as one week after the operation—however, it was not nearly so loud, and the boy could not hear it himself. The eyeball receded as gradually as it had come forward, and when the patient went out the protrusion only amounted to $\frac{3}{16}$ of an inch: the diplopia was still present—otherwise the boy was well.

He is now much in the same condition as then—his eye is red and prominent—*there is still a bruit*, but no pulsation.

THE TREATMENT OF WARTS BY INTERNAL ADMINISTRATION OF ARSENIC.

By Bingley G. Pullin, M.R.C.S., &c., Sidmouth.

During the last two years many cases of warts on the hands of young children have come under my notice, for treatment; and the following cases will, I think, fully show the efficacy and supreme advantage of arsenic, given internally, over the local application of the powerful caustics:—

C. P., æt 17, a young lady, consulted me in consequence of having suddenly developed innumerable warts on her hands, and which she said had grown with great rapidity, some of the largest of which had attained their growth within a week or ten days; the whole skin of the hands seemed to be filled with small growths, some not

visible, but easily distinguishable to touch. To attack all with nitric acid would have been utterly impossible. I therefore applied the acid to about half a dozen of the largest, and put her on a mixture containing liq. arsenicalis, ♏ iij. twice a day: at the end of a week she came to me in a state of great delight, for after having taken but two bottles of the mixture not a vestige of a wart was to be seen or felt, except the scars left by the application of the acid to the few I treated in this way.

John F., æt 8, was brought to me in consequence of his having several large warts on his hands, and which repeatedly bled. I decided at once to treat him by arsenic internally, and not apply anything externally. He took liq. arsenicalis, ♏ ij. twice a day: at the end of a week all the warts assumed a dull leaden colour. I repeated the medicine, and ordered him to see me again in a week's time; at the end of which, on seeing him, all the warts had disappeared but one, which I easily removed with my finger.

Minnie P., æt 4, I happened to see while attending her mother in a confinement, and was struck by the peculiar appearance of one of her little fingers, the ungual phalanx of which was apparently the seat of some abnormal growth, being irregular and bulbous; on closer examination, however, it proved to be nothing more than a crop of warts, which almost entirely covered the nail. On the same hand there were many others, and likewise on the opposite hand. After taking liq. arsenicalis, ♏ j. for ten days, most of the warts had fallen off, and those which still remained I easily removed with my finger and without the slightest pain to the child. Several other cases, in which I have treated these unsightly and troublesome growths in the same way, I could record, but in

every instance the cure has been complete and rapid; and I think the above cases in themselves alone prove the value of arsenic for treating warts; for it is certainly equally rapid in action, and moreover has the great advantage over the caustics in being painless, which is of so much importance in treating young children.

Reviews of Books.

Diseases of the Rectum. By ALFRED COOPER, F.R.C.S. Pp. 180. London: H. K. LEWIS. 1887.

There is little in this book which is either new or untrue. At least half a dozen works on general surgery in the English language give better practical accounts of Diseases of the Rectum than this one. The language is rarely elegant, and often slovenly; and we have marked many sentences as being grammatically deficient. There is a want of knowledge of the work of others which is by no means made up for by the "ample opportunities for investigation and treatment" which the author has enjoyed "both in private practice and at St. Mark's Hospital." It is an undeniable fact that many a midwife has had "opportunities for investigation and treatment" more ample than the most distinguished accoucheur living; but that need not justify the woman in writing a book on Midwifery.

The Climatic Treatment of Consumption. By J. A. LINDSAY, M.A., M.D. Pp. 228. London: MACMILLAN & CO. 1887.

Probably no one ever sat down to write a work on Medical Climatology with a fuller personal experience of his subject than the author; and certainly no writer, so far as we know, has given to the profession a more useful book on the Climatic Treatment of Consumption. We have been charmed with the work. Simply as a book of travel, it may be read with unflagging interest from beginning to end. As a guide to the home practitioner, it supplies just that sort of knowledge which he wants to help him, telling in a plain, simple, and straightforward manner the practical advantages and drawbacks of every resort and every mode of travel. There is

but little of theory—we have plenty of that from arm-chair travellers; and not much of that species of fact aggregated in meteorological columns; but plenty of hard sound sense as to warmth and cold, drought and moisture, food and clothing. We most heartily commend the book as being the best with which we are acquainted on the subject with which it deals.

Animal Biology. By C. Lloyd Morgan. Pp. 370. London: Rivingtons. 1887.

This work is intended as an elementary text-book, suitable for young men intending to present themselves for the London Intermediate and Preliminary Scientific Examinations, and for other similar examinations such as a medical student may be called upon to pass. For this purpose the work is admirably suited—we know of none better. The course presented in the volume is a thoroughly practical one. Certain creatures, easily procurable, are taken as types, and from these, by successive stages, are evolved lessons on the Anatomy, Physiology, Histology, and Embryology of Vertebrate and Invertebrate Animals. Every step in instruction is taken with the dissection in front of the student; and every lesson is elucidated by original and most suggestive sketches by the author. The whole work is most admirably planned and most ably carried out. The clear, simple language, and pleasant fluent style, add greatly to the charm of the book, which is certain to be a favourite with medical students.

Sprains. By C. W. Mansell Moullin, F.R.C.S. Pp. 268. London: H. K. Lewis. 1887.

This is an exceedingly well written and useful monograph on an important and often neglected class of injuries. The author has evidently taken great pains in the preparation of his work, and has presented the whole subject in a form which is at once fresh, forcible, and scientific. There is a good deal of novelty in the work, both in observation and in reasoning; and much of sound sense in suggesting and criticising modes of treatment. One pleasant feature of the work is the style; clear, pithy, and elegant, evidently written by a man who has some acquaintance with and regard for the admitted usages of the English tongue.

Syphilis. By JONATHAN HUTCHINSON, F.R.S. Pp. 532. London: CASSELL & Co. 1887.

A book by Jonathan Hutchinson on Syphilis must be welcome to the whole profession. Whether the welcome would not have been more hearty had the book been framed on broader lines than those laid out for Cassell's *Clinical Manuals*, we can scarcely venture to say. In any case there can be no doubt as to its hearty reception by all students of syphilis.

The first thing that strikes one is the peculiar arrangement of the book. The author says in the Preface, "I have aimed less at systematic completeness than at clinical exposition;" and herein he doubtless follows the natural and well-known bent of his own mind. But when we note that the systematic description occupies only 92 pages, and commentaries or illustrative cases fill the rest of the book, we can scarcely help doubting whether the balance of material is evenly divided. It seems to us that systematic description is too short, and clinical illustrations too long. The main purpose of a systematic medical work is to generalise from cases—to eliminate the unessential, and isolate and dwell upon the essential, features of a disease. Unessential, rare, and curious features are liable to be raised to undue importance at the expense of the essential and common features, if individual cases are too much dwelt upon. We all have our cases; he who has the most philosophic mind generalises from them. One case does not prove a hypothesis, though it may illustrate a principle. When a general principle has been established, a case quoted may give concreteness and vitality to the narrative; it is treading on uncertain ground to answer an important query by the record of a single case.

It is often a fault in small works written by great authorities that they take too much for granted in the reader's knowledge. The learned author dwells unduly on those difficult and abstruse questions which exercise his own mind, and skims over or ignores the elemental facts. There is just a little of this in the work. For instance, the first sentence in the first chapter reads: "The first step, in order that we should understand syphilis, is to recognise that it is by no means necessarily a venereal disease." In the same paragraph we are told that, "in practice we meet with *numerous* cases in which the contagion takes place upon parts distant from the genitals; on the finger, as *so often* seen in the case of medical men and midwives; on the lips, . . . ; in the sores produced by vaccination." In the whole chapter there is not a single

definite statement that syphilis is a venereal disease. And surely it is the exception to meet with primary sores away from the genitals, and sores from vaccination are certainly not common. This example will show the peculiarities of the book which we venture to criticise.

As a whole the work is one of extreme value, embodying in small space the teachings and experience of a man who has earned a just title to be considered a master on his subject.

Handbook of Gynæcological Operations. By ALBAN DORAN, F.R.C.S. Pp. 485. London: J. & A. CHURCHILL. 1887.

Although there is no definite statement to that effect, we must look upon this work as a more or less authoritative exposition of the practice of the Samaritan Free Hospital. In this sense it will be heartily welcomed by the profession. But, on the other hand, there is much in the work which is specially and peculiarly the author's own; and here also there is ground for congratulation in the issue of the work.

The work confines itself absolutely to the surgical or operative part of Gynæcology. This at once overlaps, and does not cover, the practice of the Samaritan. It overlaps it, in that an operation for extroversion of the bladder is described, which can scarcely be considered as gynæcological; and that operations on the kidney, which are performed in the Samaritan Hospital, are omitted. Most justly the book may be described as an exposition of Ovariotomy, full, accurate, and minute, with short accounts of such casual operations as happen to be attacked by men specially retained as ovariotomists.

While recognising the value, to one already trained in the ways of the operations described, of this admirable description of the work at the Samaritan, we doubt whether Mr. Doran has done himself or the operations justice. By a fuller and more intimate acquaintance with the work of others, the author would have written a book more worthy of general acceptance than this is, and more fully up to the level of his own capacity which is evidently of a high order. A perusal of the chapters on Hysterectomy, Perinæorraphy, and Ectopia vesicæ at once suggests this criticism; and reading and re-reading the admirable chapters on Ovariotomy confirms it.

Perhaps our slight disappointment with the work arises from our having expected too much. Still, it is a disappoint-

ment as regards degree of excellence, not as regards want of it. If, for some of the conditions, the mode of operating selected is not that which the majority of our best surgeons would adopt, in no case can the operation be described as other than good. And for the one central operation of the whole book, ovariotomy, we heartily express our belief that it gives the most complete written description in existence.

The Rectum and Anus: their Diseases and Treatment. By CHAS. B. BALL, F.R.C.S.I. Pp. 410. London: CASSELL & Co.

We have been most favourably impressed by this work. It is quite one of the best of the excellent series of *Clinical Manuals* now being issued by Messrs. Cassell and Co. As a full, clear, and trustworthy description of the diseases which it deals with, it is certainly second to none in the language. The author is evidently well read in the literature of the subject; and has nowhere failed to describe what is best up to date. But what pleases the reader most is the keen discrimination with which the author handles novel modes of treatment; bringing to bear on their consideration a mind that is well trained, not only in logical method, but in general and special experience. One of the best chapters in the book, that on Colotomy, is an example of this. The author clearly sees and appreciates the value of the resuscitated operation of laparo-colotomy, and has devised sensible and ingenious improvements in the operation; but he is not carried away either by his own reasoning or his own innovations—as so many perfervid geniuses are—but clearly and faithfully describes the advantages of the usual operation. This is but an isolated example of the whole book, which we look upon as a model of what such a work should be.

Practitioner's Handbook of Diseases of the Ear and Naso-Pharynx. (Third Edition of the *Aural Surgery*.) By H. MACNAUGHTON JONES, M.D., M.CH., M.A.O. (Hon.) Pp. 176. London: J. & A. CHURCHILL. 1887.

This little work is written in the author's well-known agreeable style, and furnishes the reader with a good *resumé* of the best and latest work on the subjects treated of.

It is most profusely illustrated with woodcuts, and a special feature is the addition of coloured plates taken from the author's Aural Atlas, representing some of the more commonly occurring morbid states of the tympanum.

We are glad to see the author speaking strongly on the craze of some specialists for evulsion of the turbinated bones; and we are likewise quite at one with him in his denunciation of the use of instrumental interference in the case of foreign bodies in the meatus. "My belief is," he says, "from several years' experience, that syringing is *the* one safe and certain method of removing foreign bodies from the ear."

It would be well for a large number of poor children who come to our hospital casualty-rooms with beads and other foreign bodies in their ears, if these remarks were taken to heart by house-surgeons and dressers.

We recommend this book as one of the best of the numerous modern small works on Diseases of the Ear.

An Index of Surgery: being a Concise Classification of the Main Facts and Theories of Surgery, for the use of Senior Students and others. By C. B. KEETLEY, F.R.C.S. Fourth Edition. London: SMITH, ELDER, & Co. 1887.

Praise would be impertinent in the case of the fourth edition of so well-known a book as Keetley's *Index*. Although primarily intended for students, it seems more valuable as a book of notes for everyday reference. For fuller information, it supplies copious references to surgical literature.

The book invites perusal by its clear and well-printed characters. The proof-reading seems to have been done carefully; but at p. 311 "glycerina" is wrong, and at p. 519 and in the index "Geath" should be "Genth." At p. 220 there is, in the text, a reference to a non-existent foot-note.

On the Diagnosis of Diseases of the Brain, Spinal Cord, and Nerves. By C. W. SUCKLING, M.D. (Lond.), M.R.C.P., &c., &c. With Illustrations. London: H. K. LEWIS. 1887.

The desire of practitioners to keep themselves abreast with the continued progress of medical research has led to the delivery in many educational centres of post-graduate courses

of lectures. Such a course Dr. Suckling delivered at Queen's College, Birmingham, a year ago, on the diagnosis of diseases of the nervous system, and by now publishing them he is enabled to render his knowledge and doctrine accessible to the profession at large, conferring thereby benefit upon the common weal.

The volume is addressed to busy practitioners and advanced students, and lays claim to be "a small and plainly-written work;" that is to say, that it is a grammar of diagnosis only, treatment and pathology not being included within the scope of the work. A careful perusal of these lectures has convinced us that Dr. Suckling has compiled a text-book which will be of very great value to the classes to whom it appeals, and will fill a vacuum which has hitherto remained unfilled. But we are inclined to think that, however useful in the course of the lectures themselves he may have found it to introduce accounts of illustrative cases, it would have been better to have omitted them from the book—which aims at being a synopsis exclusively—and perhaps utilised the space thus gained with more expanded details of the symptoms of certain diseases. Errors of diagnosis, and therefore also of prognosis, are frequently being made in Locomotor Ataxy, and this disease, for example, might well have been treated somewhat more in detail.

On the Operative Surgery of Malignant Disease. By HENRY T. BUTLIN, F.R.C.S. Pp. 408. London: J. & A. CHURCHILL. 1887.

The author has done good service to his profession by publishing this work. It is a careful, almost laborious, investigation of the results of operations for malignant disease, and an honest and judicial series of deductions as to the propriety of these operations, and the best time and best manner of performing them. In its fullest sense the work is one of prognosis; enabling the surgeon to state to a patient with malignant disease what is his expectation of life after submitting to operation. In this sense the book stands alone; there is nothing to compete with it; and if the book had contained nothing else, the operating surgeon could not have failed to have recognised its value. But it contains much more. Not only are the operations described, and usually well described, but the whole of the circumstances antecedent thereto—including diagnosis; and subsequent thereto—including the after-history of the patient, which we

are so liable to consider as ceasing when he has left with the wound healed,—are entered into with a care and minuteness which is worthy of all praise.

It is essential that on a certain date an author must cease writing his book, and hand it over to the printer. No book can be up to the date of the hour at which it is placed in the hands of the public. It would be unfair to the author to point out that his statistics in some of the operations must already be modified; this he will himself have already seen, and no doubt have noted, in view of a new edition.

Altogether we look upon the work, not only as being valuable from the material it contains, but as being specially commendable for the conspicuous power and honesty with which the material has been handled for the advancement of surgery.

Manual of Bacteriology. By EDGAR M. CROOKSHANK, M.B. (Lond.) Pp. 439. London: H. K. Lewis. 1887.

Photography of Bacteria. By EDGAR M. CROOKSHANK, M.B. (Lond.) Pp. 64. With 86 Photographs reproduced in Autotype. London: H. K. Lewis. 1887.

These two sumptuous volumes may be looked upon as the best exposition of Bacteriology at present before the English reading public. Medical men in particular owe Dr. Crookshank a debt of gratitude, not only for the clear and admirable treatment of the subject which he has presented to them, but also for the elaborate and necessarily expensive illustrations. As regards *Photography of Bacteria*, we doubt whether the very moderate price charged for the book will cover the primary expense in producing it; the work must be, in some degree at least, looked upon as a free gift to the profession.

The *Manual of Bacteriology* is essentially a second edition of the *Introduction to Practical Bacteriology*, already favourably noticed in these pages. The few months left to the author for the production of a second edition have been most usefully employed in revising and bringing up to date the first edition; in rearranging the species and recasting the systematic portions; and, last but not least, in writing additional chapters on the "General Morphology and Physiology of Bacteria, upon Antiseptics, and Disinfectants and Immunity." Seventy-three new illustrations have been added. A very full and well-arranged Bibliography has been provided.

The *Photography of Bacteria* may be taken as an illustrated

supplement to the *Manual*, while the accompanying letter-press is a clear and well-written account of the most modern methods employed in photo-micrography. The author has no need to apologise for these plates; they are certainly the best which we have seen. Many of them are as clear, and give as definite outlines, as hand-drawings; while of the others, their unmistakable fidelity to nature, their beautiful printing, and admirable selection from what are evidently model specimens, are of such value that we should not willingly exchange them for any hand-drawn illustrations which we have seen.

We most heartily congratulate both author and publisher on the production of these books; and we look forward with pleasant anticipation to much good work which will issue from the Bacteriological Laboratory at King's College, which has been partly created, and is ably presided over, by the talented author of these works.

Treatment of Disease in Children. By ANGEL MONEY, M.D. Pp. 560. London: H. K. LEWIS. 1887.

There is not much scope for originality in the production of a book of Disease in Children. For, firstly, many books have already been written upon the same subject; and secondly, diseases in children are after all not very different from diseases in adolescents and adults. Dr. Money has done well with his subject, far better than most. In his preface he says somewhat grandly that he has endeavoured to "present," from his accumulated material, "a co-ordinate microcosm for the inco-ordinate chaos." This microcosm, it may be noted, runs on to 560 pages. "It is rare," he says, "that in treatment our indiscretion serveth us better than our judgment." "In medicine, as in the universe, all things are relative," he says in the introduction. Probably it is because we so seldom meet with this mood of philosophy in medical books nowadays that we are so much struck with it when we do meet it. But it is not all philosophic generalising; on the contrary, there is a great deal of personal, dogmatic, and exceedingly concrete statement. "All through the book he has," as he tells us, "emphasised that treatment he is accustomed to adopt." There is rarely any doubt as to the weight of this emphasis.

The book is full—too full indeed. The truth of the matter is that most books on children's diseases are simply books on

general medicine boiled down where the diseases are common to the whole race, and stretched out where they are peculiar to children. They are created by a man who happens to be connected with a children's hospital, and for people connected with that hospital. They are of little use to the general physician or the general practitioner. For instance, Dr. Money gives an account of "Hydatid of Liver" in his book. Now is this disease in any sense of the word peculiar to children, or even common in them? And if anyone wanted to know about Hydatid of Liver, would he ever dream of going to a book on children's diseases for it? We say nothing as to the manner in which the disease is handled; we simply doubt the propriety of its being handled here at all. And what we say of hydatids is applicable to many other diseases. Still, Dr. Money's work is, in our opinion, quite one of the best of its sort.

Nasal Polypus. By EDWARD WOAKES, M.D. (Lond.) Pp. 140. London: H. K. LEWIS. 1887.

A book of 140 pages on Nasal Polypus would seem to be the *ne plus ultra* of specialised medical writing. But this book treats of nasal polypus with neuralgia, hay-fever, and asthma in relation to ethmoiditis, and, as far as we can see, with pretty nearly every ill the flesh is heir to. As the author says in reference to nasal polypus, "it would appear difficult to limit the extent or variety of morbid phenomena which may originate in a comparatively small area." The nose is very properly regarded as the most important feature in the face; a perusal of this book has almost convinced us that it is the most important organ in the body. And so it probably is—to a man who has a polypus in it.

The subject is very well handled. Many original observations on the pathology and clinical bearings of "ethmoiditis" (as it is called), with its extensive reflex ramifications, are given. And if we venture to differ from some of the conclusions drawn as to the far-reaching influences which this disease has on the human frame, it is probably because we are not specialists on the nose.

Notes on Preparations for the Sick.

Lozenges—W. T. Cooper, London.
Jujubes—Allen & Hanburys, London.
Pastilles—T. Buxton, Bristol.

We quote the following paragraph from the second edition of Mr. Lennox Browne's book on *The Throat and its Diseases*:—

"The lozenge is a convenient form for the administration of many remedies. It should be remembered that by the use of lozenges we get not only the immediate local effect, but also the constitutional action of the drug; and this is often greater in proportion than if a corresponding amount of the remedy had been taken direct into the stomach. As examples of this may be adduced Guaiacum, a comparatively small amount of which, given in the form of a lozenge, will produce constitutional symptoms: also the effervescent lozenges of Cooper, containing half a grain of calomel, one of which, taken at night, produces far more effect on bile secretion than two or three grains would if taken in the form of a pill. For the last two or three years I have administered the ingredients of Plummer's pill in the form of an effervescing lozenge, producing by this means a much quicker and more certain constitutional action, and with considerable benefit to the local condition manifested in the cases in which the drug has been indicated. The very powerful effects produced by sedative lozenges, which contain but very moderate doses of their respective anodyne ingredients, are also well known. By the use of lozenges the salivary secretion is stimulated; this fact should be borne in mind when giving astringent lozenges, which often tend to increase the dryness of the throat symptomatic of pharyngeal relaxation, unless combined with a sialagogue, as chlorate of potash.

"The British Pharmacopœia contains some formulæ for lozenges which are very useful; but a drawback to them consists in their hardness, the consequent slowness with which they dissolve, and their liability to produce erosion of the mucous membrane.

"To obviate these inconveniences the ingredients of all lozenges in the Throat Hospital Pharmacopœia have been incorporated with fruit paste, which not only renders them more palatable, but facilitates their dissolution. I have, however, found considerable gastric derangement ensue, especially in the case of children, from this form of lozenge;

and to overcome this objection I have for some three years past combined the remedy with liquorice, which is demulcent and not irritating. It has, moreover, the further advantage of masking the nauseous tastes of many drugs valuable to administer in this form. The extreme saline pungency of chloride of ammonium, for example, is almost entirely removed when given in combination with liquorice."

The **Effervescing Lozenges** of William T. Cooper are now well known and much appreciated as thirst quenchers. The following is a list of other varieties of lozenge by the same manufacturer, many of which we have found to be of much value :—

Aperient (2 grs. jalapine).
Astringent Voice, made from the well-known red gum of Australia, "do not contain any irritant stimulant" (1 gr. of eucalyptus or red gum).
Bismuth and Soda, one after each meal (3 grs. bismuth, 5 grs. soda).
Calomel ($\frac{1}{2}$ gr.)
Carbolic Acid ($\frac{1}{5}$ gr.)
Cerium, Oxalate of (2 grs.)
Chlorate of Potash (3 grs.)
Chlorate of Potash, and Eucalyptus.
Compound Euonymin.
Ipecacuanha, an agreeable form for children ($\frac{1}{12}$ gr.)
Iron, Phosphate of, do not blacken the teeth (3 grs.)
Iron and Quinine Tonic (3 grs. iron, $\frac{1}{4}$ gr. quinine).
Rhatany, Extract of (2 grs.)

Messrs. Allen and Hanburys manufacture a series of **Medicated Jujubes and Pastilles,** which, having as their basis Pâte de Jujube, are soft and demulcent in themselves, whilst their rounded form and, in some cases, agreeable flavour make them usually acceptable to the patient as a vehicle for many medicinal substances. The list contains the following :—

Morphia ($\frac{1}{10}$ gr.)
Ipecacuanha (same strength as the B.P. lozenges).
Morphia and Ipecacuanha (gr. $\frac{1}{10}$ and gr. $\frac{1}{4}$).
Compound Morphia and Ipecacuanha ($\frac{1}{10}$ gr. morph., $\frac{1}{2}$ ipec., $\frac{1}{2}$ squill, &c.)
Opium and Belladonna. An agreeable substitute for the troch. opii B.P., and of the same strength.
Aconite. Each pastille equivalent to half a drop of the B.P. tincture.
Compound Camphor or Voice.
Chlorate of Soda.
Lithia. An agreeable mode of taking this alkali. Each pastille contains 1 grain.
Benzoated Voice. Useful to public speakers, &c. 1 or 2 may be taken shortly before any exertion of the voice.
Chlorate of Potash. A more agreeable form than the lozenge of the Pharmacopœia.

Chalybeate. (1 grain of citrate of iron.) An agreeable form of lozenge, readily taken by children.
Rhatany.
Tannin. The same strength as the troch. acid. tannic. P.B.
Carbolic Acid. Useful in sore throat or any condition of the stomach or mouth attended with fœtor of the breath.
Bromide of Ammonium.
Chlorate of Potash and Borax.
Borax.
Chloride of Ammonium.

Mr. Buxton has sent us specimens of a series of **Pastilles** prepared by him: they are of a firm gelatinous consistence, readily melting in the mouth at the body temperature, and are not disagreeable to the palate. His list of pastilles is as follows:

Ext. Eucalypti et Pulv. Scillæ.
Am. Chlor. et Sodæ Bibor.
Cocain. ($\frac{1}{5}$ gr.)
Glycerin. et Codeia ($\frac{1}{5}$ gr.)
Glycerin. et Apomorphia ($\frac{1}{5\frac{1}{2}}$ gr.)
Morphia ($\frac{1}{5\frac{1}{2}}$ gr.) **et Ipecac.** ($\frac{1}{1\frac{1}{2}}$ gr.)
Iodol. (1 gr.)

He sends also—

Trochisci Eucalypti Co. (contain potass chlor., ext. eucalypti rostrati, et pulv. cubebæ.

Pharmaceutical Preparations.—W. E. Sacker, London.

Allied to the above various series of lozenges are the **Cocaine Pellets** and **Voice Discs** sent to us by Mr. Sacker. The former, each containing one-sixteenth of a grain of the alkaloid, are found to be of service as a remedy for laryngeal cough and throat irritation. The compressed Cocaine Pellets contain one-twentieth of a grain of cocaine, in combination with borax, chlorate of potash, soda, and ammonia, in a circular form. The voice discs are composed of cubebs, chlorate of potash, liquorice, and guaiacum resin.

This manufacturer also sends us a bottle of his **Syrup. Hypophosphit. Comp.**, which has the following ingredients in each fluid drachm:

Ferri hypophosphit.)
Calcis ,, |
Manganes. ,, | of each one grain.
Sodæ ,,)
Quinine, half grain.
Strychniæ, one sixty-fourth of a grain.

Preparations of this kind are now so well known as to require no detailed account of their properties.

Mr. Sacker also sends us some of the **Coated Pills** prepared by Messrs. W. H. Schieffelin & Co. These are second to none as regards "the perfection of pill-making" and efficiency of the product. Few patients will now tolerate the old-fashioned, freshly-prepared, and still moist pill, which is only prevented from sticking to its neighbours by a thick coating of magnesia or French chalk. How often have we sympathised with a patient who has been condemned to the swallowing every half-hour of a croton chloral pill—moist, sticky, and fragrant; and how often have we been prevented from prescribing this drug from a knowledge of the fact that this is the form in which it would probably be dispensed! Few patients have any difficulty in swallowing nicely-coated pills, dry, and free from taste or smell; whilst, on the other hand, the best of drugs fail in their mission when presented to the patient in a nauseous and disagreeable form. Our transatlantic pharmacists have given us the perfection of pill-making; nevertheless it is inconvenient at times to wait for our pills whilst they are being conveyed from the other side of the Western ocean. Of the numerous formulæ commonly used and in readiness, some of the most useful are the following, selected as being the most recent:

Aloin. Strychniæ, et Belladonnæ, Pil. (aloin, $\frac{1}{3}$ gr.; strychniæ, $\frac{1}{60}$ gr.; ext. fol. belladonnæ, $\frac{1}{8}$ gr.)

Calcii Sulphidi, Pil. ($\frac{1}{10}$ gr., $\frac{1}{4}$ gr., $\frac{1}{2}$ gr., 1 gr.) Dose $\frac{1}{10}$ to 1 grain. This salt, which under ordinary circumstances rapidly spoils, keeps well in the soluble coated pill.

Cascaræ Sagradæ Ext., Pil. (2 grs.)

Euonymin et Coloc. Comp. Ext., Pil. (euonymin, 1 gr.; coloc. comp. ext. P.B., 3 grs.)

Pil Quiniæ, Ferri, et Zinci Valerianat. (quiniæ valerianat., 1 gr.; ferri valerianat., 1 gr.; zinci valerianat., 1 gr.)

"Ergotin" (Ext. Ergotæ), Pil. (1 gr., 3 grs.)

Ferruginous (Blaud's), Pil. (ferri sulph., $2\frac{1}{2}$ grs.; potass. carb., $2\frac{1}{2}$ grs.) These pills are admirably adapted for the assimilation of iron, as the ingredients react upon each other to form protoxide of iron, which, owing to the protection afforded by the soluble coating, remains unaltered until freed for action by the stomach juices.

Phosphori, Pil. ($\frac{1}{100}$ gr., $\frac{1}{30}$ gr., $\frac{1}{15}$ gr., $\frac{1}{12}$ gr., $\frac{1}{10}$ gr.)

Quiniæ, Phosphori, Ferri, et Nucis Vomicæ, Pil. (quiniæ sulph., 1 gr.; phosphori, $\frac{1}{100}$ gr.; ferri carb.—Vallet's mass, 1 gr.; ext. nucis vomicæ, $\frac{1}{4}$ gr.)

Ergotin Comp., Pil. (ergotin, 3 grs.; ext. cannab. Ind., $\frac{1}{6}$ gr.; strychniæ, $\frac{1}{60}$ gr.)

It is claimed for these pills that the best materials are used in their manufacture, that they are made by the best of machinery with the greatest possible care, that they are subdivided with scrupulous exactitude, and that no volatile principles are dissipated by heat or organic matters charred.

We have found that the efficiency of therapeutic action appears to justify the claim which is made for them by their manufacturers, whose name is at once a guarantee of perfection as regards pill-making.

Kronenquelle Water.—W. SCHACHT & Co., London.

Ober-Salzbrunn, in Prussian Silesia, has recently obtained notoriety from the rapidly increasing popularity of the water of the Crown spring, the consumption of which had increased from 12,623 bottles in 1881 to 242,179 in 1885.

The water is clear as crystal, and perfectly colourless: it has a pleasant pungent taste, caused by small bubbles of carbonic acid. Analysis shows that it contains 2·33 grammes of saline matters per 1000, and that these consist largely of bicarbonate of soda, lime, and magnesia, with smaller portions of sulphates, and traces of lithium and iron. Its composition should give it a prominent place among the remedies calculated to prevent the deposition of urates in the joints, as well as the tendency of uric acid to crystallise within the body; and experience has shown that for these purposes it can scarcely be surpassed.

Antiseptic Dressings.—J. MILNE, London.

We have received some samples of antiseptic dressings prepared by Mr. Milne with ammonio-mercuric chloride, or sal-alembroth, as it is usually called. The trustworthiness of this salt as an antiseptic is now beyond dispute, and it is extensively used. We have sometimes suspected that this salt, being cheap, has been added in excess in the dressings; at least, we have noticed pustular eruptions under some of these dressings when left unremoved on the skin for a week or longer. Milne's reputation is so well known that we can always place implicit reliance on the quality of the dressings he manufactures, not only as regards the admixture of the chemicals, but with respect to the texture and manufacture of the vehicles he employs. The gauze in dressings and bandages, and the wool in bulk and in convenient small tampons in bags, seem to be material for surgical dressings which are of the highest excellence.

Messrs. Parke, Davis, and Co., Detroit, U.S.A., are the proprietors of Semple's Atomizing Inhaler, which we noticed in September. Messrs. Burgoyne, Burbidges, and Co. are the agents.

PERISCOPE.

MEDICINE.

Tuberculosis of the Bulb in a Child.—Mons. Bonnerville Isch-Wall reports an interesting case of this somewhat rare lesion. The patient came of a family with bad nervous history, but non-phthisical. The first appearance of illness came on when three years old, with digestive troubles, night-terrors, and change of character. Eight months after, the respiration became sighing and hurried, there were attacks of giddiness and a transient strabismus of the left eye, with weakness of the legs and some fever. The child appeared to become stupid. After a remission of six weeks the above symptoms reappeared, there now being marked dyspnœa and left internal strabismus. On admission, the child could with difficulty walk and speak. Shortly afterwards all power of speech and of movement of the limbs was lost: there was dysphagia, the expression became anxious and suffering, and a plaintive cry was frequently uttered. The pulse was very irregular, and the temperature slightly raised. These symptoms gradually became worse, but with notable remissions occurring almost daily. Paraplegia present one day disappeared the next, and an area of skin before hypersensitive became anæsthetic. For a few days preceding the fatal termination there was notable emaciation, retraction of the abdomen, and diminution of the urinary secretion. Dysphagia, constipation, stiffness of the cervical spine, paralysis and contracture of the limbs became more marked; and for two days before death the temperature steadily rose until it attained the height of 108° F., when death occurred.

The autopsy showed old caseous nodules, some partly cretaceous, in the apices of both lungs. The bulb was enlarged, and contained also a number of caseating tubercular nodules from the size of a pea to that of a nut. There was double descending sclerosis of the crossed pyramidal tracts in the spinal cord. The rest of the brain and the other organs were normal.

The authors give a useful collection of ten recorded cases of a similar kind, and point out how extremely the symptoms of bulbar tumours vary in them. The most constant symp-

tom is strabismus; vomiting comes next in order of frequency, but may be absent; and crossed paralysis, though very frequent, may not occur, as in the above quoted case. They would class the cases in three groups: (1) Tuberculous lesions of the bulb, giving rise to no symptoms until just before death, which may be caused by a concurrent affection of some other organ; (2) the disease advancing slowly, with intermittent aggravations from time to time; and (3) following a steadily progressive course.

The high temperature observed towards the end in this case was not noted in any of the other instances quoted, in several of which it remained subnormal throughout the duration of the illness.—*Le Progrès médical*, August 20th, 1887.

Treatment of Cirrhosis.—M. Lancereaux was led to adopt the treatment of alcoholic cirrhosis by iodide of potassium from observations made as to its good effects in cases of syphilitic and malarial disease of the liver. He argued that since, histologically, all these diseases are characterised by the overgrowth of cellular elements of the same kind, if iodide of potassium relieved the two latter, it should also be beneficial in cases of the first kind. The first case of alcoholic cirrhosis was that of a young man who had been a heavy drinker, and who was apparently dying of advanced cirrhosis, characterised by diminution in size of the liver, ascites, œdema of the legs, emaciation, atrophy of muscles, bilious vomiting, &c. He was put upon a milk diet, with iodide of potassium, and frictions to the skin. To M. Lancereaux's surprise, improvement in the general condition was soon manifest, though the ascites continued to augment until paracentesis became necessary. The ascites returned to nearly its former extent after paracentesis, then completely disappeared; and three months from the commencement of treatment, there was no fluid in the abdomen, and the patient had regained his flesh and strength, and considered himself well. Five years afterwards, having reformed his mode of life, he still remained well. He gives details of three other cases cured by the same means, and is confident that by these measures atrophic cirrhosis is not only capable of amelioration, but also of cure. In the so-called hypertrophic form of cirrhosis the results are not so good, and this he attributes to the facts that the glandular cells in this form are frequently largely destroyed, and also undergo extensive fatty degeneration. In alcoholic cirrhosis attended with persistent jaundice no benefit was obtained; but with these exceptions treatment failed in only one case, and here the *post-mortem* examination

showed that an error of diagnosis had been made, and that the case was one of peri-hepatitis.

The rapidity of the cure and the duration of treatment necessarily vary with the more or less advanced stage of the malady. In favourable cases, improvement generally begins to be manifest in about fifteen days, with increase of the urinary secretion and diminution of œdema and ascites. At the same time dilatation of the subcutaneous abdominal veins and enlargement of the spleen gradually disappear, while the patient gains flesh and strength, and digestive disturbances improve. These results obtain in from six weeks to three months; but on account of the tendency of the disease to re-establish itself, the treatment should be continued longer, from some months to one year in bad cases, if they wish to avoid a recurrence. At the same time the patient must abstain from all forms of alcohol, and observe the strictest dietary and hygienic regulations, and the danger of departing from these precautions must be impressed upon them. M. Lancereaux gives the case of a man who was relieved of all symptoms, and remained well for a year, but then relapsed into his former drunken habits, and died of a return of the disease. He attributes the good effects of the iodide to its power of preventing the growth and development of the young connective tissue, and finally insists on the importance of a raw-milk diet during the time of treatment.—*Gazette des hôpitaux*, September 1st, 1887. J. MICHELL CLARKE, M.B.

SURGERY.

Endoscopy.—Dr. L. L. Friedrich read a paper on this subject before the Medical Society of the District of Columbia. After referring to the slight amount of use made of the endoscope, he describes the instrument as no better than a straight tube, blackened on the inside and furnished with an obturator. It is made either of metal or hard rubber; the latter is to be preferred when caustics are used. To make a thorough examination the instrument should be well warmed and oiled, and introduced gently into the membranous urethra. The obturator is then withdrawn, the oil and mucus wiped away from the presenting membrane at the bottom of the tube by means of a little pledget of cotton at the end of a probe. The illumination is then brought to bear directly on each portion of the membrane as the tube is withdrawn. The ordinary laryngoscope mirror answers every purpose. A little practice is required to distinguish healthy from diseased tissue. As with the ophthalmoscope, all at first appears red.

The healthy mucous membrane has a pale pink colour, and contrasts strongly with congested spots, which are of a vinous red without polish: granulations also are readily recognised by the practised eye. By means of the endoscope strong solutions can be applied directly, and with accuracy, to the diseased spots.

The urethral chancre is not very uncommon, and can be detected by the endoscope. Professor Von Dittel showed that by means of the endoscope and electric light the interior of the bladder could be thoroughly explored. Professor Janowisky says that the endoscope is sometimes valuable in prognosis, and as an aid to diagnosis, especially in strictures of a wide calibre, as described by Otis.—*The Journal of the American Medical Association*, September 3rd, 1887.

Surgical Scarlatina.—Dr. Hoffa, of Würzburg, in a lecture recently published in Volkmann's *Sammlung Klinischer Vorträge*, points out that in many of the numerous recorded cases of so-called surgical scarlatina there is no evidence of scarlatinal infection. These cases, it is stated, may be arranged under four classes. In the first the rash is nothing more than erythema, due to vaso-motor disturbance, which appears early and vanishes rapidly.

The second class is made up of cases of toxic erythema, occurring in the course of twenty-four or forty-eight hours after some cutting operation, and after injury with or without wounding of the skin. This rash resembles any erythematous medicinal rash, and is accompanied by gastric disturbance and high fever. It occurs in the form of fine red points, or large isolated patches with intervening clear spaces of healthy skin. As a rule it disappears in twenty-four hours, and is not followed by desquamation. It is probably caused by the absorption of wound secretions, or the pressure of crushed tissue in the circulation, or may be due in some cases to the action of fibrin ferment. The rash in the third group is the result of septicæmic or pyæmic infection, and is of much more serious import than the preceding groups. It usually occurs in the form of a disseminated erythema, often associated with miliaria and pustules, with purpuric spots, and with ecthyma. There is one form of pyæmic rash which it is very difficult to distinguish from true scarlatina. On the third, fifth, or seventh day after the first attack of rigors, this rash usually appears at the wound or open surface, and in the course of the two following days spreads as a bright and evenly-diffused redness, often limited to one side of the trunk. This

rash disappears for a moment under digital pressure, and is usually accompanied by œdematous swelling of the skin. It vanishes in the course of the fourth or fifth day, and is often followed by desquamation, and sometimes by purulent infiltration of the subcutaneous cellular tissue. This variety of exanthem is probably due to capillary embolism through micro-organisms.

Besides these three groups, there is a fourth, which comprises cases in which the rash is really the result of the infection of the organism with the poison of scarlatina. Dr. Hoffa says that the diagnosis of scarlatina can only be accepted when, in addition to the characteristic exanthem, there is present at least one of the other morbid conditions that go to form the group of symptoms of the eruptive fever; viz., angina, swelling of the submaxillary glands, desquamation or nephritis. The diagnosis will be rendered certain if the patient has been exposed to the infection of scarlatina, or if he has transmitted the disease to others. These cases may be subdivided into two classes: first, those patients who with a wound take the infection in the ordinary manner, through the respiratory or digestive tract; and secondly, those cases in which the infection enters by the wound and spreads from it. The author believes that the tendency of the subject of an open wound to contract scarlatina is due to the circumstance, that the wound is a convenient place for the entrance and development of the micro-organisms.

Sir James Paget believes that in these cases the period of incubation is shortened. The name surgical scarlatina should only be applied to those cases in which the scarlatinal infection starts from the wound. In these cases the characteristic symptoms of scarlatina are often much modified, but probably not more so than in ordinary cases of scarlatina without a wound, which often deviates in many ways from the typical course of the disease.—*The Medical Record*, October 8th, 1887.

Treatment of Anal Fissures and Hæmorrhoids by Gradual Dilatation.—Dr. H. O. Walker has treated upwards of fifty cases of anal fissures and hæmorrhoids by this method. He states that anal fissure ranks third in frequency among diseases of the rectum, and is due principally to the passage of hardened fæces through the sphincters. Monod, Verneuil, Kelsey, and Allingham have all recommended forcible dilatation for hæmorrhoids, either simply or combined with other measures. Forcible dilatation is an accepted method for the relief of fissure in ano, and in many cases gives very speedy results.

Dr. Walker recommends gradual dilatation for the following reasons :—

1. It is almost painless, at least after the first and second dilatation.

2. It does not tear the parts, nor does it produce paresis, as occasionally occurs after forcible dilatation.

3. Neither does it leave cicatrices, that are apt to produce strictures, as in the method of hypodermic injection or ligature of hæmorrhoids.—*The Medical Age*, August 25th, 1887.

Salicylate of Soda in Gonorrhœal Orchitis.—In the *Revue Mèdicale* for June, 1887, salicylate of soda is extolled as nearly a specific in gonorrhœal orchitis. At the end of some hours there will be a diminution of the pain, which disappears completely a short time afterwards. But it is in the acute cases of epididymitis, accompanied inflammation of the tunica vaginalis, that the treatment especially efficacious. It is without effect if the prominent symptom is inflammation of the cord. In the cases treated by the salicylate, the resolution of the swelling is more rapid, and can be obtained in from eight to ten days; and after a day or two the patient can get up. The remedy is recommended for its simplicity and harmlessness.—*Medical and Surgical Reporter*, September 24th, 1887. W. J. PENNY.

LARYNGOLOGY.

Cancer of the Larynx.—Dr. H. A. Johnson publishes the details of five cases of this disease.

Case I. A male, aged 65, of good habits and no specific taint. The trouble in the throat began one year before consultation. Soon afterwards he had pain on swallowing, and the secretion of saliva became excessive and annoying. Dyspnœa and dysphonia supervened, and finally complete aphonia. A few attempts to reduce the tumour and relieve the dyspnœa by topical measures were made, but failed. One night, urgent dyspnœa compelled the performance of tracheotomy. The patient lived three months after the operation. The breathing was completely relieved, but deglutition remained painful. The tumour in this case was probably an epithelioma.

Case II. A male, aged 70; antecedents good; no cancer in the family. He suffered from dysphagia and marked dyspnœa. The vestibule of the larynx was filled with a ragged, irregular mass, with only a narrow, tortuous opening, through which a little air could pass. The patient declined

operation, and died a few days afterwards during a paroxysm of dyspnœa.

Case III. Male, aged 68; antecedents good. He enjoyed good health until a year before consultation, when he began to have some irritability of the throat, and slight difficulty of swallowing, with cough. Examination revealed a somewhat smooth but slightly lobulated mass springing from the right internal wall above the vocal cords. Attempts were made to destroy the growth by galvano-cautery. Large masses were in this way destroyed, but growth was rapid. One month after the commencement of treatment the difficulty in breathing became worse; spasm of the respiratory muscles occurred; food and drink passed into the larynx, and on several occasions there appeared to be immediate danger to life. Tracheotomy was therefore performed, with relief of all the alarming symptoms. The patient lived eight months and a few days after the operation. The autopsy revealed an extensive epithelioma, involving the whole of the right half of the larynx, and also the left portion of the supra-glottic structures.

Case IV. Male, aged 48. In this case the swelling commenced, two years before consultation, outside the larynx. It gradually increased, and within the last few months the patient has had difficulty in speaking, and dyspnœa, especially at night. Examination with the laryngoscope revealed a smooth reddish tumefaction of the arytenoid, together with the supra-glottic structures on the same side. Tracheotomy was advised, but declined. The subsequent history of this case is not known.

Case V. Male, aged 54. His mother died of cancer, but antecedents otherwise good. General health good until one year before consultation, when he began to have some discomfort in the throat. For the few months before consultation this had been getting worse, with dysphagia and constant dyspnœa. Inspiration was more difficult than expiration, especially at night. There had been one severe hæmorrhage from the throat a few days before he was first seen by Dr. Johnson. Examination revealed a dark, reddish mass springing from the right side above the glottis, which bled on the slightest touch. Tracheotomy was performed, with marked relief to the breathing. The question of partial extirpation of the larynx was raised. The patient passed from observation for three months; when he returned, the growth had considerably increased in size, and the lymphatics on the right side of the neck were involved; and there had been frequent hæmorrhages. Under these circum-

stances, excision of the larynx was not performed, and the patient died soon after; *i.e.*, about five months after the tracheotomy.

In conclusion, Dr. Johnson calls attention to the following facts:—

1. That all the patients were males, the youngest 45 years old.

2. That of the five cases, the growth was evidently from the right side in three cases, from the left side in one case, and in the remaining case probably from the left side.

3. That in only one case was there a history of cancer in the family.

4. That in one case the disease appeared to be secondary, or an extension of an external cancer.

5. That in one case only was there any evidence of infection of the lymphatics from the larynx.

6. That in only one case was there any troublesome hæmorrhage.

7. That in none was there marked pain in the larynx.

8. That in three cases tracheotomy was performed, and the patients' lives were prolonged apparently three, five, and eight months respectively.—*New York Medical Journal*, September 24th, 1887.

Unilateral Excision of the Larynx for Primary Carcinoma of the Larynx.—Professor Socin removed half the larynx from a female patient, aged 50, for primary carcinoma. At the time of the operation the larynx was firmly adherent to the thyroid, and it was supposed that the disease had extended to that gland. After the larynx extirpation, the thyroid continued to increase rapidly, and was subsequently removed. She recovered well also from this operation, but has been unable to take food by the mouth, as, during deglutition, it passes into the larynx and causes asphyxia. She is fed exclusively by the stomach tube, and breathes through a tracheal tube. There has been great difficulty in keeping the larynx patent, as its lumen has become partly contracted by cicatricial tissue. Dilatation is now practised by passing bougies from the tracheal wound upwards.—*The Journal of the American Medical Association*, September 10th, 1887. W. J. PENNY.

SCRAPS

PICKED UP BY THE ASSISTANT-EDITOR.

Examinations.—In a story in *The Hospital* it is said that an examiner, failing to get from a candidate answers to several questions in succession, handed him a visiting card and said to him, "Mr. Brown, will you be kind enough to put down on that card all you *do* know of the science of medicine."

Too many at once.—In reference to the Latin epigram which appeared in the September number, a subscriber writes: "I send you the product of a wakeful night. Not very elegant, but literal. They ought to be elegiac hexameters and pentameters. But that was rather too hard a job."

I was rather below par, but you quickly found me out,
O Symmachus, and came, and your hundred pupils too;
With their hundred icy fingers they pulled me all about:
Before, I felt no fever; now, Symmachus, I do.

IDEM GRÆCE.

Ἄρρωστος ἦν· ἀλλ' εὐθέως προσέρχεται
Ἑκατον μαθήταις Σύμμαχος κυκλοῦμενος·
Ψύχροι τε μ' ἑκατον ψηλαφῶσι δάκτυλοι
Οὐκ εἶχον, ὦμοι, πύρετον, ἀλλὰ νῦν ἔχω.

Recent Therapeutics.—*The Medical World* perpetrates the following, in reply to a question as to the value of the Bergeon treatment of consumption: "It certainly detracts the mind of the patient for a while, and may do good by its moral effect, by making him think of his latter end. He becomes, as it were, conscious of his rectum, or, as the schoolboy renders it, *mens conscia recti*. He may even 'bacilli' enough to cherish the hope that he is being cured, and is taking a short cut to health over his *pons asinorum*, but we regret to say that he will find the road to end, as it begun—in gas."—*The Medical Age*.

As an instance of the danger of being funny, *The Medical Record* says: "The humourous *feuilletoniste* of the *Union Mèdicale* not long ago argued that no apparatus was necessary for carrying out the Bergeon method of treating consumption. It was only necessary to make the patient eat beans. He now states that Professor Ewald afterward presented the idea, in all seriousness, at a meeting of the *Gesellschaft für innere Medicin* of Berlin."

Re-Vaccination.—The following letter will, during the present small-pox scare, be read with great interest: "New Street, Hanover Square, July 7th, 1817. Sir,—Agreeably to your request, I transmit to you the result of my practice in vaccination. I have vaccinated more than twelve thousand persons, many of whom have been put to the test of variolous matter, both by inoculation and exposure to the infection in the natural way. It has been long and satisfactorily ascertained that vaccination affords as complete a security against the future infection of the small-pox as variolous inoculation. There are certainly exceptions of both kinds. Instances have occurred in which small-pox has appeared both after small-pock and cow-pock inoculation, probably in an equal proportion; but there is this remarkable difference, that when it takes place after the cow-pock, it is commonly in a mitigated form. I have long recommended a second vaccination, or even a more frequent repetition of the process, in order to remove any scruples that may be entertained on the subject, but must report my decided conviction that those persons who have had the cow-

pock are full as safe as those who have had the small-pox. Several instances have occurred in which small-pox has taken place a second time, and proved fatal. One occurred near Newbury, and another at Chichester, both of which proved fatal. It is, perhaps, unnecessary to observe that when I re-vaccinate any person, I insist on doing it gratuitously, and make it a point to inoculate with two or three contiguous punctures in each arm with active virus in a fluid state. If I can communicate any further information that may be useful to the public or satisfactory to yourself, you may at all times command my services. I remain, with great respect, sir, your most obedient humble servant, JOHN RING. To Dr. LEWIS, Bath."

Mr. Augustin Prichard, in sending the above, says: "I have lately fallen in with this letter, written from a London practitioner to a great-uncle of mine, Dr. Lewis, who practised at Bath at the beginning of this century; and as the perennial question of the advantage or the necessity of re-vaccination is once more cropping up, the opinion of an early vaccinator may be of interest; and it must be remembered that they had then always virulent small-pox to deal with and to test their success. There is one paragraph with which your readers will scarcely agree."

Science in Court.—A German trade journal relates a curious instance in which a legal decision was arrived at by means of a scientific experiment in a court of law. One of the workmen employed by a large firm let his hammer slip from his fingers just as it was descending upon the object on which he was employed. It struck another workman in the region of the left eye, and produced a serious wound. The sufferer was attended by a surgeon, and in a short time after the accident all trace of its results had disappeared. The patient, however, persisted in declaring that he was enduring great pain, and that he had completely lost the sight of his left eye. The head of the firm, who was legally responsible for the consequences of the occurrence, employed several specialists, who met in consultation, and who could discover nothing wrong with the eye. Compensation was therefore refused to the man, and the matter was taken into court by him. Here, again, the experts commissioned by the judge to examine the eye unanimously declared that it was perfectly sound and uninjured. The plaintiff persisting that he could see nothing with the left eye, one of the experts had recourse to the following experiment. He took a black board and wrote some words upon it in green ink. Then he desired the plaintiff to put on a pair of spectacles which had been specially prepared for this occasion. The glass for the left eye was plain white; that for the right was red. The man having adjusted them, the expert asked him to read what was written on the board, which he did without a moment's hesitation, thereby convicting himself of fraud, for the red glass in the right eye would turn the green ink into black, and render it quite invisible upon the black board. He had read the writing with his left eye only, the spectacles on that side having an ordinary white glass. The result of the experiment was the nonsuiting of the plaintiff, who was besides condemned to pay the costs of the action. The application of this novel form of science to his case must have been extremely surprising to the workman, who in his ignorance was doubtless firmly convinced that no one in the world could be in a position to contradict his assertion about his own left eye. His position was, to his own thinking, impregnable; and to be found out by a bit of jugglery with a pair of spectacles and a black board must have been all the more exasperating because it was so absolutely unexpected.—*The Daily News.*

[Mr. Cross tells me that this well-known test of Snellen's is being frequently applied. The difficulty rests in getting the exact shade of green which will be invisible through a red glass. The case quoted is a good instance of the practical value of the test.]

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